STUDY OF AIRPOWER

UNIVERSITY OF MICHIGAN

MAY 31 1956

MAIN READING ROOM

HEARINGS

BEFORE THE

SUBCOMMITTEE ON THE AIR FORCE

OF THE

COMMITTEE ON ARMED SERVICES

UNITED STATES SENATE

EIGHTY-FOURTH CONGRESS

SECOND SESSION

AIRPOWER

APRIL 25, 26, 27, 30, AND MAY 2, 1956

PART 2

Printed for the use of the Committee on Armed Services

UNITED STATES
GOVERNMENT PRINTING OFFICE
76922 WASHINGTON : 1956

COMMITTEE ON ARMED SERVICES

RICHARD B. RUSSELL, Georgia, *Chairman*

HARRY FLOOD BYRD, Virginia	LEVERETT SALTONSTALL, Massachusetts
LYNDON B. JOHNSON, Texas	STYLES BRIDGES, New Hampshire
ESTES KEFAUVER, Tennessee	RALPH E. FLANDERS, Vermont
JOHN STENNIS, Mississippi	MARGARET CHASE SMITH, Maine
STUART SYMINGTON, Missouri	FRANCIS CASE, South Dakota
HENRY M. JACKSON, Washington	JAMES H. DUFF, Pennsylvania
SAM J. ERVIN, Jr., North Carolina	HERMAN WELKER, Idaho

THE SUBCOMMITTEE ON THE AIR FORCE OF THE COMMITTEE ON ARMED SERVICES

STUART SYMINGTON, Missouri, *Chairman*

HENRY M. JACKSON, Washington	LEVERETT SALTONSTALL, Massachusetts
SAM J. ERVIN, Jr., North Carolina	JAMES H. DUFF, Pennsylvania

FOWLER HAMILTON, *General Counsel*
RAMSAY D. POTTS, Jr., *Associate General Counsel*
EDWARD C. WELSH, *Staff Director*
WALLACE L. ENGLE, *Staff Member*
RONALD FRIEDENBERG, *Staff Member*
D. F. MCGILLICUDDY, Jr., *Staff Member*

DEPOSITED BY THE
UNITED STATES OF AMERICA

CONTENTS

	Page
Opening statement by Senator Stuart Symington, chairman	63
Testimony of Gen. Curtis E. LeMay, commander in chief, Strategic Air Command.	
Accompanied by:	
Maj. Gen. John P. McConnell, Director of Plans, SAC.	
Maj. Gen. Robert Terrill, Director of Operations, SAC.	
Brig. Gen. Horace Wade, Director of Personnel, Headquarters, SAC.	
Col. Alfred J. Hanlon, Chief, Target Analysis Division, D/Int., SAC.	
Maj. Robert P. Lukeman, War Plans Branch, D/Plans, SAC.	
Open session:	
April 27, 1956	63
April 30, 1956	99
May 2, 1956	111
Closed session:	
April 25, 1956	119
April 26, 1956	183
May 2, 1956	217

STUDY OF AIRPOWER

FRIDAY, APRIL 27, 1956

UNITED STATES SENATE,
SUBCOMMITTEE ON THE AIR FORCE
OF THE COMMITTEE ON ARMED SERVICES,
Washington, D. C.

The subcommittee (consisting of Senators Symington, Jackson, Ervin, Saltonstall, and Duff) met, pursuant to call, at 10 a. m., in room 318, Senate Office Building, Senator Stuart Symington (chairman of the subcommittee) presiding.

Present: Senators Symington, Jackson, Ervin, Saltonstall, and Duff.

Also present: Fowler Hamilton, general counsel; Ramsay D. Potts, Jr., associate general counsel; Fred B. Rhodes, assistant to Senator Saltonstall, E. C. Welsh, assistant to Senator Symington, and Wallace L. Engle, staff member.

Senator SYMINGTON. The meeting of the Subcommittee on the Air Force of the Senate Armed Services Committee will please come to order.

This morning we will receive testimony from Gen. Curtis LeMay, commanding general of the Strategic Air Command.

The committee is now in the third phase of its inquiry into the adequacy of our country's airpower.

The first phase has been concluded. During that phase we heard evidence from four of our greatest living military men, Gen. Bedell Smith, Gen. Omar Bradley, Adm. Robert Carney, and Gen. Carl Spaatz.

These patriots told us that our very survival depends upon maintaining, with unremitting diligence, air, naval, and military forces ready for war at a moment's notice.

They described the astounding scientific weapons developments and the unpredicted growth of Russia's military might in the 10 years since World War II, both of which have produced these revolutionary changes in our vital defense needs.

The second phase, the examination of the present and prospective airpower of the Communist bloc is virtually completed, and during this phase we obtained information necessarily in executive session from Mr. Allen Dulles, Director of the Central Intelligence Agency, from senior members of his staff and from specially qualified intelligence officers of the Department of the Air Force.

At this initial step in the third phase, the study of our own airpower, we are now engaged in a careful examination of the strength and weaknesses of our Strategic Air Command.

We already have had three meetings for this purpose. They had to be closed meetings for security reasons. They covered in the most specific detail the present and prospective power of this great safeguard of the free world, our long-range atomic airpower.

We are mindful that, however pressing the need for security, there is always the counterneed for an educated and informed public opinion.

Accordingly we have asked General LeMay to appear next Monday afternoon at an open session to give us answers to some of the ultimate questions that have emerged from our closed inquiry into the Strategic Air Command.

Because we need to have full information about the Strategic Air Command strength and weaknesses, and because we have had to study its weaknesses as well as its strength, we have agreed to a special security arrangement covering General LeMay's open testimony next Monday.

It may not again be necessary, speaking for myself I earnestly hope it will not again be necessary, to adopt such a restricted method of presenting publicly such important information upon a subject so vital to our country's welfare.

Under the arrangements that will govern next Monday's procedures, certain questions have already been submitted to General LeMay. He will prepare written answers to these questions. The questions and the written answers will then be submitted by him to his superiors in the Department of Defense for review from a security standpoint, and he will then be advised by his superiors as to their views on any security questions presented.

Both in fairness to his superiors in the Department of Defense and in fairness to General LeMay, I would now like to make clear for the record that he alone will make the decision as to the information that he gives and the views he will state.

The necessarily restrictive consequences of the information that can be given to the public resulting from this special arrangement require me to make a brief comment about the testimony to be given this morning.

General LeMay has often told us that one of the most serious limitations upon SAC's present and future power is lack of adequate skilled personnel. Unhappily that is no secret from the Russians. They know SAC's weaknesses and their own strength in this regard just as well as we do, and hence General LeMay can describe it at an open hearing with no risk to security. But the fact that the personnel problem can be presented in public must not be permitted to distort the general picture of SAC's strength or weaknesses by giving undue emphasis to what is only one of several important limitations upon our long-range atomic striking power.

There are other critically serious problems now faced by the Strategic Air Command. These relate to the numbers and quality of aircraft, the ratio of jet tankers to jet bombers, and also to the adequacy of bases.

These subjects will be covered in the open hearings next Monday.

With these preliminary observations I will now ask General LeMay and such members of his staff as he may wish to call upon to present to the committee the information that has been requested by it concerning SAC's personnel situation.

Before doing that, I would like to make a brief comment on the career of this great officer.

Gen. Curtis E. LeMay was born in Columbus, Ohio, on November 15, 1906. He was graduated from Ohio State University with a bachelor of engineering degree in June 1928.

The following October he was appointed a second lieutenant in the Regular Army after completing flight training at Kelly Field, Tex.

His first tour of duty was with the 27th Pursuit Squadron at Selfridge Field, Mich., and this was followed by such assigments as engineer operations and intelligence officer and navigator-pilot, commander of the B–17 airplane.

He also took a 3 months' course in navigation at Langley Field, Va., and was graduated from the Air Corps Tactical School at Maxwell Field, Ala.

In 1937 General LeMay participated in a good will South American flight of B–17 Flying Fortresses led by the late Maj. Gen. Robert Olds.

A second good-will trip to South America which he made the following year brought the entire group the Mackay Trophy, and just prior to the United States entry into World War II he pioneered the ferry routes to Africa via South America and the South Atlantic and to England via the North Atlantic.

General LeMay then trained the 305th Bombardment Group which he took to England in the fall of 1942.

He introduced formation pattern bombing where all aircraft dropped their bombs in synchronization with a leader who provided all data on range and deflection.

He also put into tactical use the combat formation utilizing 18 aircraft in each group.

These same techniques were adapted to the B–29's of his 20th Bomber Command in the China-Burma-India theater.

In his final tour of duty with the Eighth Air Force from June 1943 to June 1944, General LeMay was commanding general of the Third Bombardment Division.

In August 1943 he led the famous shuttle mission of Flying Fortresses from England to Africa, the first such made against the target of Regensburg, Germany, and he was transferred in August 1944 to the China-Burma-India theater to head the 20th Bomber Command.

General LeMay was appointed commander of the Marianas-based B–29's in January 1945.

When this command was changed to the 20th Air Force, he continued to head it until he was assigned as Chief of Staff of the United States Army's Strategic Air Force with headquarters at Guam. He continued in those duties until September 1945 when he made a nonstop flight from Tokyo, Japan, to Chicago, Ill.

In October 1945 General LeMay was assigned to Air Materiel Command headquarters at Wright Field, where he remained until December 5, 1945, when he was appointed Deputy Chief of Air Staff for Research and Development at Air Force Headquarters in Washington.

On October 1, 1947, General LeMay was named commanding general of the United States Air Forces in Europe.

In October 1948 he assumed command of Strategic Air Command at Andrews Field, Md., and the following month moved with SAC headquarters to Offutt Air Force Base, Nebr., retaining his position as commanding general.

His decorations include the Distinguished Service Cross, Distinguished Service Medal with oak leaf cluster, the Silver Star, the Distinguished Flying Cross with cluster, and the Air Medal with three clusters.

His foreign decorations include the Brazilian Order of the Southern Cross, the British Legion of Honor, the Belgian Croix de Guerre with palm, the French Legion of Honor with palm, and the British Distinguished Flying Cross.

He is rated a command pilot, combat observer, aircraft observer, and technical observer.

I could not let these words on General LeMay pass without reporting one of the great experiences that I had in Washington.

In September 1948 or thereabouts the late great Secretary Forrestal said that he was worried about stories that bombers could not operate without fighter escort, and he wanted somebody to come up and tell him about that worry. I chose General LeMay and he described to Secretary Forrestal the Regensburg raid, which was a punitive raid but one that resulted in the complete destruction of the targets in question.

Because of a mix-up on weather, our bombers, when they hit the coast of Europe, were attacked by the Nazi fighters at their peak from the time they hit the coast of Europe until they went over the Alps to Africa. The story was a fine story, and I will never forget when Secretary Forrestal asked General LeMay if he was sure of his facts, the general replied quietly "I led the first group, sir."

General LeMay, it is a privilege to have a great airman and a great soldier here with us this morning.

We look forward to your testimony, and now I would ask that you and those who will testify with you rise and be sworn.

Senator SALTONSTALL. Mr. Chairman, will you yield for just a moment?

Senator SYMINGTON. I would be glad to yield to the Senator from Massachusetts.

Senator SALTONSTALL. Mr. Chairman, I would simply like to add, General, it is an honor to hear your record as a soldier and as a patriot, and we all have confidence in your leadership of SAC, Strategic Air Command, and what you have told us in executive sessions shows that you are leading that command with imagination which is so necessary these days, foresight and thoroughness, and I am confident that you will tell us frankly today your problems as they face you in the leadership of the Strategic Air Command and how Congress can help that command in the days to come.

Senator SYMINGTON. Senator Jackson, have you any comments?

Senator JACKSON. Well, after the very fine statement that you have made about General LeMay there is nothing more that I can add. I have the greatest respect for his good judgment.

Senator SYMINGTON. Senator Duff?

Senator DUFF. Mr. Chairman, I am very happy to associate myself with the commendations of the General that have been previously made.

Senator SYMINGTON. Senator Ervin?

Senator ERVIN. Down in North Carolina when we approve what the preacher said, we just say amen. I say amen to what you and Senator Saltonstall said.

TESTIMONY OF GEN. CURTIS E. LeMAY, COMMANDER IN CHIEF, STRATEGIC AIR COMMAND; AND BRIG. GEN. HORACE WADE, DIRECTOR OF PERSONNEL, HEADQUARTERS, STRATEGIC AIR COMMAND

Senator SYMINGTON. General, will you raise your right hand and be sworn?

Do you solemnly promise that that testimony which you are about to give to this subcommittee of the Senate Armed Services Committee will be the truth, the whole truth, and nothing but the truth, so help you God?

General LEMAY. I do.

Senator SYMINGTON. General, will you identify the other people who will testify besides yourself?

General LEMAY. General Wade, who was just sworn with me, will be the only other one testifying with me this morning.

Senator SYMINGTON. For the members of the committee, this briefing will be somewhat extensive and will last perhaps an hour.

It will be my suggestion that, unless the committee objects, General LeMay and his people proceed through the briefing without interruption except for any comments at any time that General LeMay would like to make himself.

Do I hear any objections to that suggestion?

There is none, and therefore you will proceed on that basis.

General LEMAY. Mr. Chairman and members of the subcommittee, we have heretofore presented in a closed hearing information in an attempt to answer questions which your counsel has indicated the committee would desire to be answered.

Your counsel has now suggested that the committee would be interested in what we consider to be some of our most critical deficiencies.

There is one deficiency which pertains not only to Strategic Air Command but to the military services as a whole, which I believe should be brought to the attention of the committee.

This is a deficiency in skilled manpower.

We will never be able to maintain the kind of force in being capable of striking against the enemy on a moment's notice or of assuming an alert posture which will in any way approach what we ought to be able to do with the money which has been expended against our equipment and facilities unless we have skilled professional manpower required to maintain and operate a modern weapons system.

I consider the lack of skilled manpower to be my most critical deficiency and I would appreciate a few minutes of the committee's time to acquaint them with the problems arising out of this deficiency.

With your permission, General Wade, the Director of Personnel, will monitor this portion of the discussion.

General WADE. Mr. Chairman, members of the committee, our personnel discussion covers the topics on this outline.

To operate a combat force requires equipment, bases, and people,

Fortunately we know in advance the equipment and the bases that are programed.

With the people it is different. Our lead time is limited to 4 years, the initial enlistment period.

A weapons system can be placed on the drawing board, and in 6 or 7 years we will get it in our inventory.

At the same time that we plan for this weapons system, we should be able to plan for the people who are to operate it and maintain. We are unable to do this.

The people who joined the Air Force 4 years ago are, for the most part, civilians today.

The same turnover keeps repeating itself.

The people who are joining today will be, for the most part, civilians 4 years from now. That is, unless we modernize our personnel concepts.

The SAC mission requires that our overall personnel policies be based on these two factors: First, we must have a personnel force in being, one that is capable of executing the mission today, one that is fully trained, not half-trained, one that is fully ready, not half-ready.

Second, we must expand and modernize our force to meet our requirements under the 137-wing program.

Most of our expansion is completed, but we have a lot to do in modernization.

This means retraining people on new equipment. These two factors spell but one thing to us. We must not only have a force in being. It must be a professional force. A professional force requires professional airmen. We define a professional airman as one on his second or subsequent enlistment.

When he is on his first enlistment, he is usually in a period of training, and far from being productive.

Today 70 percent of the airmen in SAC are nonprofessionals.

Throughout this briefing we will develop the five facts as listed on this slide.

We will show that the qualitative and quantitative personnel increases in the command have not kept pace with the equipment increases but rather have lagged behind them.

Personnel conditions in SAC are extremely critical, and are forecasted to remain so.

The actions that have been taken have helped but they have not been enough.

The personnel problem can be resolved, and with the resolution of these problems, we can increase our capability for less dollars.

To put our briefing into proper perspective, let's first look at the overall United States Air Force strength, which itself reveals a problem area, a problem of nonproductive time.

As of the 31st of December 1955, we had 936,739 officers and airmen in the United States Air Force.

In SAC we had 181,136 or 19 percent of the total USAF strength, SAC being the largest single major air command.

You will note the three red bars, the Strategic Air Command, the Air Defense Command, and the Tactical Air Command. These are the three Zone of Interior fighting commands.

There are two significant features concerning the distribution of personnel on this chart.

First, the hatched portion of each bar denotes that portion of officers' and airmen's strength that is permanently located overseas.

Add these hatched portions together and they amount to approximately 29 percent of our total Air Force strength.

The second item of significance is the number of officers and airmen in student and pipeline status, 13 percent of the total strength.

In addition to this we must consider the strength of the Air Training Command, 12 percent. These people are training the students.

When we combine these two, we find that approximately one-fourth of the United States Air Force strength is nonproductive. We mean it is not available to the fighting command. Why is this so high? It is because we are constantly training a replacement for the trained airmen who have separated from us and gone back to civilian life. From this point on we will confine our discussion to the Strategic Air Command completely.

Next let's look at the expansion that has taken place in SAC. For the period January 1953 through January 1956 we see the expansion in bases, units and personnel.

We have had 123 percent increase in our air refueling squadrons, a 77 percent increase in bases and a 35 percent increase in wings, with only a 20 percent increase in personnel.

This means that we have had to spread our trained resources very thin.

In fact, we have had to spread it too thin. This has had its impact on our combat capability. The next slide covers the same period of time.

On the vertical scale we show the percentage of manning and time along the bottom.

In January 1953 we had 152 percent of our airmen requirements, that is bodywise in numbers.

This has now regressed to 92 percent.

A similar trend has taken place with our effective men as denoted by the blue line.

In January 1953 we were 80 percent effectively manned.

This now has regressed to 78 percent.

This does not tell the complete story.

We are talking about the overall manning for all career fields. In some career fields and skills, our effective manning is below 50 percent.

General LeMay. Just a minute.

May I explain to the committee the difference between effective manning and mannig? When we say we are manned, we mean that there is a man present for duty in that vacancy.

We are not effectively manned, however, until he is fully trained and capable of carrying out the job the vacancy calls for, so you can see that we will always be less effectively manned than we should be manned.

However, we should not have such a large discrepancy as we now have.

Senator Symington. General, let me urge, that any time you break into the briefing just as you did in Omaha, the committee will be pleased to have you do so.

General Wade. A similar trend has occurred in our officer manning.

Here we show the same time period.

We have reflected the manning for each officer grade.

In 1953 we had 88 percent of our requirements for colonels. This has now regressed to 83 percent.

Lieutenant colonels we have gone from 76 percent to 69 percent, with captains from 81 to 74.

This trend was slightly different for majors, and greatly different for lieutenants as shown on this next slide.

With majors our mean improved by 1 percentage point, yes, 81 to 82 percent, with lieutenants from 102 percent to 121 percent.

So even though we have been expanding with people, it has been primarily in the grade of second lieutenants, the new, inexperienced officer who for the most part does not stay with us long enough to become experienced.

Another comparison is in dollars. We have made a comparison between the years 1954 and 1955 in asset value, payroll, and personnel assigned.

During this 12-month period we had nearly a $2 billion increase in asset values. This represented a 28.9 percent increase.

With payroll we had a $25 million increase representing a 5.4 percent gain.

You will recall that during this period we received a 10-percent pay increase when you compute the base pay and allowances.

When you relate this to the total payroll and the fact that we had an additional 5,800 people in our command in 1955, this payroll percentage should be higher.

Why wasn't it?

It was because our experience level, that is by grade, was diminishing.

In 1955 we were paying lower-ranking people—another way of portraying our decline in experience level.

The third comparison is in personnel assigned.

This increase amounted to 5,822 people, or a 3.4-percent increase.

By analyzing these comparisons, we can see that we are spending billions on equipment and peanuts for people.

Another comparison is in aircraft, combat effectiveness and personnel assigned.

These are trend lines. The black line on the top chart represents the increase in bomber and tanker aircraft authorized during the period January 1954 through January 1956.

Fighter aircraft have been omitted.

The airframe indices provide a good common denominator for all elements of the force.

The red line on the second chart denotes the growth in combat effectiveness of command and is a summation of points as taken from our operational readiness reports.

These reports reflect the wing's capability to perform its mission. You will note that our combat effectiveness line flattened out during the period July 1955 to January 1956 despite the increase in authorized airframes during this period.

This increase in airframes represents a tremendous investment and our combat effectiveness should follow along with it.

The blue line in the third chart follows the trend in personnel assigned for the same period.

The significant point is that during the period July 1955 through January 1956 the actual number of personnel assigned decreased.

Now we will take a quick look at our officer structure in SAC. Here we show the problem of quantity and quality as it pertains to officers.

As of January 1, 1956, we had a requirement for 29,045 officers with only 26,180 assigned, a shortage of some 2,897, meaning we had only 90 percent of our requirement.

Of those assigned 16,189 were at the fully qualified level, with some 9,991 at the entry level, learning the job that they were assigned to do.

Of the 26,180 assigned, 15 percent were regulars, 56 percent were career reservists and 29 percent were reservists with dates of separation.

Our studies reveal that career reservists will normally stay in the Air Force. Career reservists are made up for the most part of officers who came in the Air Force during World War II. They have stayed so long now that they can't afford to take a chance and get out.

The picture is different for most of the reserves with dates of separation, that is the 29 percent. They are for the most part new reserve officers who have come into the Air Force from the resources of the Air Force ROTC program.

They are young officers with a college education. Generally they do not plan to stay in the Air Force. Only 1 out of 4 is staying with us today.

This composition creates an additional problem, one of age, as shown on this next slide.

Here we have reflected the officer's age and grade composition as of June 30, 1953.

At that time the majority of our officers were in the age bracket of 33 to 35. The majority of our captains, majors and lieutenant colonels also came within this age group.

For the most part, these are the officers who came into the Air Force during World War II.

We also had a secondary hump in the age bracket 24 to 26. These are mostly the young Air Force ROTC officers.

We conducted another survey as of September 30, 1955, and here we show the 1955 composition with a black line superimposed on the 1953 composition.

Our peak in the age hump of 33 to 35 is still with us.

However, the hump has moved over.

We now have a greater number of officers who fall in the age grouping of 36 to 38.

Our secondary hump, 24 to 26, is still with us, and the peak is exactly in the same age bracket, with only an increase in the numbers in this group, the Air Force ROTC officer.

The peak is not moving because these officers are serving their minimum time and then returning to civilian life.

Senator SYMINGTON. General, will you yourself comment as to the significance of that chart?

General LEMAY. Yes, sir; what this means is that the bulk of our officers in the Air Force are getting older.

Unfortunately that hump contains the majority of our airplane commanders. We are not yet worried about a 38-year-old pilot, but at some future date they are going to be moving out of the picture.

You can see that behind that we have no one to replace them.

The second lieutenant, yes, but he is not staying with us. The career offered is not commensurate with what he can get outside, so he is leaving us. So at some future time, unless we do something to fill that valley in there, we are going to be faced with a very critical situation in that we will not be able to man the aircraft we have.

General WADE. We conclude from the previous figures that our aircraft commander inventory is getting older.

Coupled with this we have 2,340 SAC pilots who have dates of separation between now and December of 1958.

We also know that we are only retaining 24 percent of our new pilots, or about one-fourth.

The current SAC pilot shortage is 1,767.

This makes the problem critical.

This lower retention will result in a loss of nearly 1,780 pilots between now and the end of 1958, with the bulk of these separations coming in calendar year 1958.

We must do something to improve this retention rate. This loss in pilots means a regression of 890 crews for combat-ready status to non-combat-ready status.

This low retention rate also means that we will not be retaining an adequate resource to replace our aging aircraft commanders. Unless we do something today to improve this retention rate, we will be training for attrition rather than for an increase in combat-ready status.

We have similar problems in other officer career fields. In fact, our retention rate with the new young officer in the support positions is much lower.

We are only retaining about 11 or 12 percent of these officers. The proposed officer augmentation which is before Congress now should go a long way in increasing our retention of the new young ROTC officer.

From this point on we will talk about the enlisted personnel in SAC. The experience level and the instability of our enlisted personnel can best be shown by taking a look at the history of the command from 1949 to the present.

In 1949 the Strategic Air Command had slightly more than 54,000 airmen assigned. This force was composed largely of career-minded airmen who had gained most of their experience during World War II.

The experience level and productivity of these men was exceedingly high. This, combined with a satisfactory degree of stability, enabled the command to enjoy a high retention rate.

In 1950 the command expanded to approximately 66,500. In 1951 the command experienced its greatest single expansion, almost 57,000 troops came into the command, bringing the strength to some 113,000.

The input in 1951, similar to the 1950 input, was composed for the most part of Reserve and National Guard individuals, who were required to meet the expansion which was necessitated by the Korean conflict.

This 1951 force was in our opinion the strongest and most competent force, personnel-wise, that we have ever had in the Strategic Air Command.

Please note how this force of 113,000 is depleting itself, and we will expect to retain by December 31 of this year only some 13,000 out of the 113,000 we had in 1951.

Without going into details of the other bars, you can see the type of input that we had each year.

By following the color code, you can also see it depletes itself in the subsequent years.

Before I leave this slide, let me call your attention to the small net gain we made each year after 1951.

I will return to this one in a few minutes.

Now let's look at the composition of the 1956 force.

In December of this year we will have approximately 170,000 airmen in the command, of which 77,000, or 45 percent of our strength, will be in their first year in SAC.

Another 45,000 or 26 percent will be in their second year.

In other words, 71 percent of our strength will have less than 2 years in the Strategic Air Command. The majority of these first and second year people will be inexperienced and will lack SAC know-how.

The people whom we have to rely on to do the training and get the job done come to approximately 29 percent.

24,000 of these people are in their third year, 9,400 in their fourth year, but only 14,000, or 8½ percent of the command strength, will have been in SAC over 4 years.

Gentlemen, does this look like a professional force?

You will recall that I called your attention to the small net gain that we had in the years subsequent to the year 1951. Let's take a look at one of those years.

If you can visualize the Strategic Air Command as a beaker we started the calendar year 1955 with the beaker filled to a level of 149,000 airmen.

We ended the year with the beaker filled to a level of 154,594. This meant a net gain of some 5,386 airmen.

But what did it take to get this net gain?

To get this net gain of 5,386, we opened a faucet at the top of our beaker and started pumping in people. We pumped in 68,158 during 1955. Considering the type of input we had, the airmen came into us valued at some $6,000 each.

During the same period we opened an orifice at the bottom of our beaker and drained off 62,764 valued at $14,875, each.

So what did we do? We poured in a weak solution, drained off a heavy solution and constantly diluted the solution within our beaker, the experience level.

Had we not opened this orifice, we would have filled the beaker to some 217,000. This meant to us we had 130,777 individual personnel actions to get a net gain of some 5,386. This meant that we had to process in and out of the command 130,000 individuals.

This is a real inefficient, ineffective way of running an Air Force or any other business as far as that is concerned. But why did we drain off so many?

We drained off 20,000 as a result of USAF withdrawals to meet overseas quotas, and 42,619 for separation from the service, 42,619 left the Air Force, went back to civilian life.

Consider the training and experience of the 42,619 who were separated. The Air Force lost airmen valued at $634 million. We might ask ourselves why are so many leaving? Why are so many returned home?

We get many answers, but it can all be boiled down into a one-syllable word: Pay.

This problem is even more serious when you look at certain technical

career fields. An example of one such career field is a K-system bomb-navigation mechanic.

Let's take a look at the enlistment profile of this individual. We bring this airman into the service from civilian life and provide him with 2½ months of basic training.

Senator SYMINGTON. General, will you explain what a K-system is, at the suggestion of counsel?

General LEMAY. Yes, sir; the K-system is the navigation and bombing system used on our bomber aircraft. It is a very complicated piece of machinery consisting of many black boxes, computers, radar, and so forth.

General WADE. After we provide him with 2½ months of basic training teaching him to be an airman, we then send him away to school, 5 months of expensive schooling at Lowry Air Force Base, Denver, Colo.

After his travel and leave period he will arrive at one of our units as an apprentice level airman.

Up to this point we have invested in him approximately $4,000. All through his second year he will be available to us as an apprenticed airman. We would be better off during the period if he did not perform any preventive maintenance. He usually breaks up more equipment than he maintains, but he must be trained.

Throughout the second year he actually spends half of his time in a classroom and the other half doing on-the-job training.

Some time shortly after the beginning of the third year approximately 10 percent of these individuals will be required to attend advanced school for training as a skilled repairman. This will qualify him to handle and repair the components of the K-system. This school will require 5 more months away from his station and it will cost approximately $2,300.

The entire fourth year is a full productive period.

At the end of the fourth year, he is ready for upgrading to the skilled level, to the supervisory technician level. It is at this time that 90 percent of thse people leave the service and return home.

At this point in his life, the Air Force has invested in him some $22,500, and has received approximately 1½ years of productive effort from him.

This airman, like so many of our technicians, has no trouble getting a job that will start him out at a salary paying 2 to 6 times as much as we can pay him.

We have recapped the productivity of a man on this next slide. During his first enlistment, we invested $22,500 in him. We get 37 percent of his time fully productive, 63 percent is not fully productive, two-thirds being at the apprentice level, one-third in formal schools.

Now compare this with the second enlistment.

If we can carry this individual over into his second enlistment, we will have him fully productive 92 percent of the time and at a higher skill level, the supervisory technician level.

This points out why we must have these people for longer than a 4-year period. This is only one of the many examples of how our complex equipment has dictated the need for a 65-percent reenlistment rate, which in return should give us a professional force.

Our personnel problems can be summed up in four parts along with the causes:

Quantity—the causes: Budget limitations, command expansion.

Quality: This is the low-experience level caused by the low retainability of the trained, experienced airman.

Nonproductive time in relation to productive time—The causes: Complex equipment.

Instability and turnover: All three of the above factors cause this problem, plus the large percentage of the Air Force which is committed overseas and requires replacement over 2 or 3 years.

Another cause is schools.

Gentlemen, this brings us to part II of our briefing, actions taken.

For the past 3 years the Strategic Air Command has been doing everything within its authority to resolve these problem areas. A good many of the actions taken have helped. Had it not been for some of these actions, the problems would have been more serious today than they are, if that is possible.

We are striving to get better use out of our noncommissioned officers.

In an attempt to raise the prestige and utilization of our noncommissioned officers we have established four noncommissioned officer academies in SAC.

We send our top noncommissioned officers to these academies for 6 weeks of extensive academic-type training.

We find that the Academy has paid off in big dividends. We get an individual out of the Academy who is a much better leader and manager than he was before we sent him. As a result we are getting better utilization out of all of our airmen.

Another action has been the establishment of our dependents assistance program. We have established dependents assistance centers at each SAC base. This program was established with one objective in mind: To provide a man with a trouble-free mind to perform SAC's job.

This organization is made up of volunteer wives of officers and noncommissioned officers who are ready to step in and help the dependents whenever and wherever the necessity arises.

We have, as of today, some 8,500 wives participating in this program. They have assisted in over 25,000 different cases within the past 2 years.

What is more, it is an organization that is not costing the taxpayers anything because we have the volunteer wives doing the work.

Still another action has been the airman living improvement program. This program has been concerned primarily with improving the living accommodations for our unmarried airmen. The most important improvement in this area is the construction of our SAC-type barracks where we now have not more than 2 or 3 men to a room and there is a private bath there for each 2 rooms.

Our mission requires working around the clock.

For example, our people are getting up at 1 or 2 o'clock in the morning for a 5 o'clock takeoff.

With people coming and going at all hours of the night, the old-type barracks, which had 60 men to a room, meant that someone's sleep was always being disturbed. We were not even giving our people an opportunity to get a normal 8 hours of rest.

We have also attempted to establish off-duty recreation activities. One such program is our automotive hobby shop. These automotive

hobby shops have been established at all SAC bases and are fully equipped to permit an individual to do all types of maintenance on his car.

This not only pays off in providing an off-duty recreation and pastime for our airmen and officers, but it also provides the individual an opportunity to learn through tinkering with his automobile how to use the tools and to become more skilled during his free time in something that is beneficial to the Air Force.

This is another activity which is not costing the taxpayers any money.

We have another one, the SAC aero clubs.

These clubs are equipped with civilian-type airplanes and anyone regardless of rank can learn to fly during his off-duty hours. He can also learn through competent instructors the basic fundamentals of meteorology and navigation.

The enthusiasm shown for this program is very high. We have specific examples where individuals have reenlisted only because of these aero clubs.

These clubs are private corporations and are completely self-supporting. In addition to the actions that we have taken, other actions have been taken by the higher echelons of command.

Many actions have been taken by the Department of Defense and the Air Staff within the past 2 years.

All of these have helped alleviate the problem.

Some of the more important ones are listed here.

First the base of choice program. This permits an airman, upon the expiration of his term of service, to reenlist for a base of his choosing, provided there is a vacancy for his specialty at that base.

It also permits an individual who is returning from overseas to select a base of his choice.

Second, is the policy which established equitable distribution for all personnel.

This policy assures that the one who has been back from overseas the longest is the first to return.

Third, concurrent travel to overseas areas.

It has now been authorized, and we are now trying to send the dependents right along with the military member when he is going overseas. We cannot do this in all cases, only in those areas where family housing will be available at the time the individual and his dependents arrive.

Fourth, we are paying our personnel twice a month if they choose to be paid that way. They are now paid by check. This eliminates the long pay lines that we used to have.

In addition to these, there are legislative actions which are shown on the next slide. Some of the more important ones are listed here.

First, the reenlistment bonus. As you know, this bonus became effective in September 1954 and provides an incentive for the airman to reenlist.

The home-loan guaranty bill which was passed in November 1954. This entitles active-duty personnel to Government-insured loans similar to the Veterans Administration loans to veterans.

Third, the pay increase which became effective April 1, 1955. All of these actions have helped, but they have not been enough.

We are still losing our trained people.

This brings us to part III, the results of our actions. The next two slides will show you the improvements that have been made.

In calendar year 1954, our overall reenlistment rate was 29 percent.

For calendar year 1955 it was 34 percent, an increase of 5 percentage points.

When we talk about an overall reenlistment rate, it is often misleading. We have to ask ourselves, whom did we reenlist?

On the lower part of this chart this is indicated.

As you can see, our reenlistment rate for some of the soft corps specialists such as supply, transportation and food service was well above the average, whereas the reenlistment rate for some of our highly trained technicians, the radio, radar, armament, electrical, and hydraulic specialists was well below the average.

This problem is even more serious when you consider the type of investment that we put in these two different categories of people.

In the soft-corps type there is but a relatively small investment They require only a short period of training and are usually productive for at least 3½ years of their 4-year enlistment.

Just the opposite is true with the technician. These people are usually trained for 2½ to 3 years before they become productive, and we put a big investment in them.

When they get out at the end of their 4 years, we have not received enough productivity from them to get a fair return on our large investment.

We are projecting an overall 35-percent reenlistment rate for fiscal year 1956.

Without even considering career fields, this alone would not be enough, as shown on this next slide.

As of June 1955 we had a requirement for some 159,975 airmen. We had assigned some 158,793.

By June of 1958, 47,860 of these 158,000 airmen will still be with us because their term of service will not have expired.

With a 35-percent reenlistment rate, we will reenlist 38,000 of our airmen, bringing our total retainability up to some 85,000.

By June 1958 we will have had an increase in our requirements up to 174,000. This means that to meet our requirements, we will need a new input during the period of 88,614 airmen.

Over 50 percent will have to be new input during this period. In other words, for every 2 airmen in SAC, 1 will be inexperienced.

In view of this forecast, additional actions must be taken to improve career attractiveness, and in turn retain the experienced qualified individuals that we need.

This brings us to part IV of our briefing, Soviet personnel actions.

Do the Soviets have a similar problem?

We say they do not. The information that we have available concerning the Soviets indicates that they do not have the same type of personnel problems that we have.

Our studies have revealed that some of the best overall manpower resources in the U. S. S. R. are available and utilized in the Soviet Air Force.

We made a comparison of the pay between the components of the Soviet armed forces.

Let's take a look at that. Here we have compared the pay and benefits of a captain in the Soviet Air Force and a captain in the Soviet Army, both having 10 years of service and both being married.

The base pay of $175 a month is the same for both.

The big differential though is in position pay.

The Soviet Air Force captain, serving as a flight leader in a jet squadron, gets $425 a month position pay.

The Russians have recognized the need for a monetary award in relation to duties performed. The big difference can be seen by reviewing the totals. The army captain gets $213 per month and the air force captain some $765 a month.

Senator SYMINGTON. Pardon me, General; will you explain what the term "position pay" means?

General LEMAY. Yes; that corresponds to the extra pay for the job he holds. This captain would probably be a flight leader in a combat squadron; and the remuneration for that is very high, whereas the remuneration for, say, a company commander in an infantry regiment is only $12.

In other words, method of paying people for the skill they possess.

General WADE. The Air Force captain also gets free food rations, tobacco, and uniform. He also gets a discount at stores and restaurants plus other fringe benefits.

Now let's compare the Soviet Air Force captain with a captain in the United States Air Force.

Here again we are comparing captains both with 10 years' service and both being married.

As you can see, our captain gets more base and longevity pay. We pay our captain $190 per month flying pay whereas the Soviet captain receives $425 a month position pay.

You can note the other comparisons. When you look at the totals, you will find that the Soviet Air Force captain gets $26 a month more than the United States Air Force captain, plus fringe benefits that we previously mentioned.

In conclusion, we believe that the Soviet Air Force pay is used as an incentive to obtain a volunteer force. We also have learned that they have no problems in retaining their officers. There is a long waiting list of officers to get into the Air Force.

We only point this out for one reason: to show that the Soviets have a professional force and are not confronted with the personnel problems such as are existing today in our Air Force.

Now for part V, actions required.

Through continuous studies and surveys we have come up with what we consider and call our 5-point program, the 5 actions required to improve the personnel situation.

I might say before I go any further that if these proposals are adopted and implemented, we will get more capability with less dollars.

We will develop these from here on.

All of the actions that we have proposed are based on this one requirement:

Create a professional force. We must have at least one-half of our enlisted personnel as professionals.

Today we only have 30 percent. Why do we need a professional force? We need a professional force because of three reasons that are listed here.

We must increase our capability, and the biggest area for improvement is with our personnel. We can place a greater percentage of our strength in the fighting force.

As we previously showed you, one-fourth of our strength is tied up in the student status and in the Training Command.

With a professional force we can reduce this and place more people in the fighting command where they are urgently needed.

Third, we can reduce the cost, and this is covered in many areas. This brings us to another question: Why don't we have a professional force?

Our studies have revealed that the differences between an Air Force and a civilian job are too great.

The differences are too great in the areas of pay, working conditions, geographical location, and working hours.

The technician in the Air Force is being paid $50 to $300 a month less than what he can get doing the same job in civilian life.

In addition he is often required to work under adverse conditions in all kinds of weather, and in undesirable and remote locations.

His working hours are often far from being fixed. It is not a bit uncommon for some of our people to work 50 to 60 hours a week without any additional compensation.

The unions have recognized, demanded, and obtained compensation for all of these differences. Private industry pays the individual in relation to his skill. They also give additional compensation to these people who are required to work under adverse conditions.

Most all private industrial organizations have recognized and established additional pay for employees who are located in undesirable and remote locations.

We in the Air Force have been slow in adopting the principles long recognized by industry.

This brings us to another question: How can we create a professional force?

And here we list our five-point program.

First, we need a revised pay structure, one that is competitive with industry, and which will compensate our enlisted personnel by specialty.

We also need a revised pay structure for our officers, one which will reflect an adequate increase for an officer as he gains in years of service and experience.

Our pay structure does just the opposite. In addition to this revision, our pay structure must be aligned with industry in regard to hardship assignments.

We believe that we must have an allowance for forced family separation. We direct a movement of individuals to an area where he cannot take his family because there is no housing. When we do this, we feel that he is entitled to an additional allowance.

We also feel that there should be an adjustment for pay by overseas areas, taking into consideration the desirability of overseas areas.

For example, today we pay the individual going to Thule the same amount of overseas pay as the individual that goes to England or to Paris.

We need pay for remote areas within the United States.

Many of our bases are located in isolated areas. If we direct our people into these areas, we should pay them accordingly, or our reenlistment rate for these undesirable areas will always be low.

But pay alone is not the answer. We also have to consider the other four points listed here.

Adequate family housing, complete dependent medical care, the restoration of commissary and base exchange rights, and educational rights.

We will go into each 1 of these 5 points in more detail. What is wrong with our pay structure?

We have 239 different specialties that we must fit into 7 pay grades. This is ridiculous.

It means that we operate on the old philosophy that one man is worth as much as another regardless of his skill. This is unheard of in industry. It is also unheard of in civil service.

For example, civil service has 40 pay grades for 175 different specialties. Our pay structure is completely outdated, going back to the days of Valley Forge.

Another thing has taken place over the past 30 or 40 years. Practically all Air Force specialists have a civilian counterpart. This was not true in the days of the cannoneer, the artilleryman, and the rifleman. All skilled airmen receive the same pay. We are paying the skilled truckdriver, the cook, and the baker the same amount that we pay the skilled radar technician.

Our pay structure is not competitive with industry.

For example, we are paying some skills as much as they can get in civilian life, whereas others are not being paid enough.

We must get in step with the facts of life and put our military pay structure on a more practical basis if we are to keep the people that we need, and also stay within a livable payroll.

We need a pay scale based on the same factors as are recognized in private industry.

The pay scale must be based on the specialty and the going wage for that specialty in industry. This brings us to another question: Does the individual in the Air Force have a responsibility similar to his counterpart in industry?

To answer this question, we made a comparison of SAC with General Motors and United Air Lines. For every $10,000 that General Motors has invested in assets, they put the equivalent of $6,000 in payroll, or 60 percent of the asset value.

With United Air Lines, they put the equivalent of $5,000 or 50 percent in payroll. In a SAC B–47 division, we put the equivalent of $740 or 7.4 percent; so it is 7.4 percent for SAC, 50 percent for United Air Lines, and 60 percent for General Motors.

If you took the total asset value of General Motors and divided it by the total number of employees, the asset value would be $11,000 per employee.

If you did the same thing for United Air Lines, the asset value would be $10,500 per employee.

If you did the same for a SAC B–47 air division, the asset value would be $55,000 per employee.

We point this out to show the cost of equipment and property in a B–47 air division for which our people are responsible.

Pay alone will not solve the problem. If we are going to retain the people, we must look after the family. At the present time we have some 89,000 families in SAC with only 16,842 appropriated and Wherry houses.

This leaves over 72,000 families to look for their own place to live. In many of our areas, there is no housing at all available. In other areas the housing is far from being adequate, and often this leads the airman to separation from the Air Force.

Another important area similar to the one on housing is dependent medical care. Again many of our airmen are leaving us today because they cannot acquire medical care for their dependents. The bill that is before Congress to rectify this situation is a step in the right direction. In our opinion, the dependents should be provided with the same medical care that is provided for the military member, complete in all respects.

Next to housing and medical care, there must be a restoration of commissary and base exchange rights. The general public often thinks that the Air Force lives for next to nothing and that we buy our groceries and clothes and almost everything at cut-rate prices. This is not true.

Shown here on this slide is a typical example of how prices in the downtown stores are lower than the base exchange price.

This came home to me yesterday. I dropped my razor 2 or 3 days ago and broke it, picked up the paper yesterday morning, the Washington Post, and I noticed an ad, a Schick 25 for $11.85. I said it must be cheaper at the post exchange. I went to the post exchange at Bolling Air Force Base. They had available a Schick 25 for $14.25.

We know that commissaries and exchanges are under constant attack by business organizations. As a result, stocks have been cut, prices have been raised, surcharges have been imposed, and high lobbyists in our Nation's Capital continue to try to get the commissaries and base exchanges closed.

Far from closing them, we want to see them expanded. We want to see them have bigger stocks, more name brands and lower prices. We must also keep in mind that all this costs the Government not a thing. In fact, the Government makes money. The profit from the base exchanges pay for most all the recreational activities and facilities on our airbases. These are some of the rights and privileges that an individual in the military once enjoyed. The people have seen these rights gradually diminished. Sometimes this is hard for them to take and sometimes it makes them bitter enough to get up and leave the service.

Our next proposal concerns educational benefits.

Ten percent of all the enlisted personnel who left the service last year said that they were leaving to take advantage of the GI bill of rights, the Korean GI bill of rights, go back home and go to school.

As a result of this, we have established an educational program where we have professors and instructors from our local universities and colleges come out to our bases and conduct evening classes.

But the individual must pay for his tuition, books, etc. Contrast this with the individual who gets out of the service. He can take advantage of the GI bill of rights, and through the Veterans' Administration have all of his tuition and expenses paid for.

We feel that the individual who remains on active duty should be given the same rights as the individual who separates. Otherwise we are penalizing the individual who remains on active duty.

Having covered our five points, we might ask ourselves another question: What has happened over the past 10 years? Unfortunately too many actions have been taken that have reduced the rights of the individual. It is not a bit uncommon for the master sergeant of today to look back over the past 10 years.

What does he see? He sees a reduction in many of the benefits and privileges that he once had. For example, he was entitled to take advantage of the World War II GI bill of rights if he remained on active duty, but he is not entitled to take advantage of the Korean GI bill.

His $1,500 income-tax exemption has been taken away. He had base exchange and commissary privileges. He for the most part had regular working hours. Our mission today does not always permit this. Right along with this, he had a greater stability.

Again this has been reduced to a considerable degree. The last factor is respect. Yes, sir; the airman 10 years ago was a respected individual, respected by the public. To a great extent this is no longer true. What does all this mean?

Briefly this: The master sergeant that we have today should be operating and functioning as a salesman for the Air Force selling the new young airman on an Air Force career. Too many of them are not doing it because of the things I have just listed.

This brings us to part 6 of our briefing, results of proposed actions. If our proposals are adopted, we will be able to increase our capability, operate more efficiently and save the taxpayers' money.

In the next few slides we will show you some of this. We can expect to achieve what is listed on this slide.

First, we can increase our reenlistment rate 35 to 65 percent. Sixty-five percent in all specialties. That is the minimum we need.

This means that we will reenlist in SAC in fiscal year 1957 an additional 10,000 skilled airmen. We placed a value on them of $148.6 million.

Second, we will be able to increase the retention of our new young officers from 25 to 50 percent. We will be retaining an average of 670 additional officers annually within SAC who would otherwise separate.

These 670 officers are valued at approximately $196 million. This is based on the cost of training experience invested in them by the time they complete their obligated tour of duty with the Air Force.

Third, we will increase the morale of the entire force. No price tag can be placed on morale.

Fourth, our proposal will permit reduction in the areas listed here. It will allow SAC to reduce our fiscal year 1958 enlisted troop spaces by 18,000, which represents a 10-percent reduction in our total. This means 18,000 less people that must be recruited from civilian life, then trained, housed, fed, and paid. Over a 4-year period we would invest approximately $268 million in these 18,000 people. The majority of this can be saved.

We can also reduce replacement training costs by 46 percent. Had we had these proposals in effect in fiscal year 1956, the saving would

have amounted to $49.1 million in airman replaced training cost of SAC airmen alone.

Next a reduction in the Training Command could be achieved. We saw some 29 percent of our people being utilized in the Training Command facilities. To operate Air Training Command costs approximately $1,102,000 a year.

It cost that in fiscal year 1955. If we could close 10 percent of their bases, we would save some $110 million.

The last item of reduction is the decrease in movement of personnel. This would mean a minimum 20,000 less permanent change of stations to and from SAC in fiscal year 1957.

This means a saving in transportation, travel funds plus we gain more efficiency and increase personnel stability.

The most important one is the fifth one.

We could get more capability and effectiveness through having a greater aircraft in commission rate and a reduced aircraft abort rate.

The improvement of aircraft in commission rate would give us the equivalent of 6½ additional wings of aircraft. If we have to build these additional wings, it would cost us approximately $2½ billion.

We will develop this in more detail on the next slide.

Aircraft in commission rate is shown along the bottom scale, the reenlistment rate on the vertical scale. In calendar year 1955 we had an average overall reenlistment rate of 25 percent in the direct support skills.

By direct support skills we mean those airmen who maintain the aircraft and its component parts.

With this reenlistment rate, we managed to have an aircraft in commission rate of some 65 percent.

Our studies have indicated that if our 5-point program is adopted and implemented, we can achieve a 65 percent reenlistment rate in these direct support skills.

With a 65 percent reenlistment rate we can raise our aircraft in commission rate to around 80 percent.

Now let's translate this average into a situation when the bell rings for a 45 aircraft B–47 wing.

With a 65 percent in commission rate, we could get 30 aircraft off the ground on their way to the target. With an 80 percent aircraft in commission rate, we would get 36 aircraft on the way to the target.

That is 6 more aircraft per wing, or a gain of 20 percent.

Multpily this 6 by the number of B and RB 47 wings that we have in SAC today, 33. It means that we could get the equivalent of 6½ more wings of aircraft on their way to the target.

But the gain does not stop there.

We know that with superior maintenance, fewer of the aircraft will abort the mission. We believe that our abort rate could be reduced by one-half, and the gain does not stop there.

We can reduce the efficiency of the enemy defense system. The more aircraft that we have penetrating the enemy defense system simultaneously, the less effective it becomes.

If we can completely saturate it, it might become completely ineffective.

A 65 percent reenlistment rate could easily mean the difference between failure and success.

We will now translate this equivalent of six and a half wings of additional aircraft into dollars. It costs us $376 million to develop a combat ready B–47 wing.

This includes the cost of various factors, housing, personnel and equipment and others as shown here.

But let's multiply this 6½ wings that we gain through a higher aircraft in commission rate by $376 million and we come up with a figure nearly $2½ billion.

Now let's relate this $2½ billion to the SAC payroll.

With this $2½ billion, we could more than quadruple the pay of every individual in SAC.

We do not advocate quadrupling the pay but we point this out to show just one of the many gains that could result from having a professional force.

This brings us to our conclusions.

First, we all know that the Soviets have proposed disarmament based on a personnel ceiling. They have not based it on weapons, bases or ships.

We can conclude from our studies that the Soviet is getting the most out of the personnel assigned.

They are getting the maximum utilization from those people made available to them.

Point 3: We know that we are not getting the maximum from the personnel that we have assigned, and that we will not, if we continue to replace the trained with the untrained, the experienced with the inexperienced.

Hence we say that despite the problems that we have, our mission will be done, but it will be done at a very high cost in effort, efficiency and dollars.

Senator SYMINGTON. Thank you, General, for a fine briefing.

General LeMay, we will be glad to have any additional comments that you would like to make at this time.

General LEMAY. I have one note here on the comparison between the Soviet pay and the United States Air Force pay.

I might point out that we studied this just as a matter of information so that we know as much about it as possible. And while the pay differential is very small in Russia, the pay the Air Force personnel get there brings them up fairly high in the economy.

They live in the top bracket of the Soviet population. I have no other comments. I would be happy to answer any questions you may have or any of the other members.

Senator SYMINGTON. Mr. Counsel, under the rules of the committee you go 10 minutes now and then we will take the Senators one by one.

Mr. HAMILTON. Thank you, sir.

General, I would like if I may to pursue briefly with you the point upon which you touched, the relative position of Russian crewmen and Russian technicians, air technicians with respect to our own.

The chart showed as I recall it that you have a 25 percent reenlistment rate among your essential skilled personnel, is that right, sir?

General LEMAY. That is correct.

Mr. HAMILTON. Would you have any estimate as to what the rate of reenlistment would be with respect to Russian skilled technicians?

General LEMAY. I can't give you a figure offhand, no, sir.

However, all of the information I have on that subject indicates that the main worry of the Soviet airman is that he might be thrown out in the cold, cruel world, and they do not think they have any problem personnelwise because of the advantage not only paywise but privilegewise of serving in their air force.

Mr. HAMILTON. And what are some of those privileges that were touched on generally by General Wade which the Russian airman possesses?

I believe the figures showed that he got a few dollars more pay per month, but does that completely delineate the difference between his econmic position and that of an American crewman?

General LEMAY. No. I think the chart was comparing a captain in the Russian Air Force and a captain in our Air Force.

In addition to his pay, he gets free uniforms. We pay for ours. He gets free food, we pay for ours. Free tobacco; we pay for ours. And in addition to that, he is entitled to 50 percent discount in any store and restaurant in Russia.

Mr. HAMILTON. Anything he wants to buy any place in Russia he gets at half price?

General LEMAY. A 50 percent discount.

Mr. HAMILTON. In other words, that in effect doubles his salary?

General LEMAY. Doubles his salary, yes.

Mr. HAMILTON. You say that the Russian airman is in the upper bracket. Would you say that he is in the upper 6 or 10 percent economically?

General LEMAY. I have not studied the Russian population as a whole, but I have the impression that he is well up near the top.

Mr. HAMILTON. Now turning for the moment to the competition that private enterprise and private industry present to your skilled personnel, have you had any cases where people have left your force, these skilled technicians, and gotten jobs in private industry at substantially higher compensation?

General LEMAY. Yes, there are many examples of that.

Mr. HAMILTON. I would like to ask you one or two additional questions if I may.

Chart F–11 referred to combat effectiveness. As I recall it, it showed that while during the period in which you were getting additional aircraft and additional bases your combat effectiveness was remaining about the same, despite these additional facilities in the way of aircraft and bases, and the chart indicated that the reason for that stability of combat effectiveness, despite the addition of these other factors, was lack of skilled personnel.

I wonder if you could elaborate somewhat for the benefit of the committee what combat effectiveness means in that context?

General LEMAY. We have a regular method of reporting combat effectiveness.

What we do is analyze all the factors that make up that combat effectiveness.

For instance, if you only have actually half of the people present for duty that you are supposed to have, you would only be 50 percent effective.

If you do not produce the flying time, the actual flying hours necessary to properly train your combat crews, then you are probably only 50 percent effective.

If you do not have all your airplanes to go into combat, you would degrade your combat effectiveness.

All of those factors are analyzed, and we come up with a percentage figure, and we consider 70 percent combat ready, once a command gets up to the 70 percent figures, we consider him combat ready.

Now as we add new units in the expansion program, we should expect our combat effectiveness, total combat effectiveness of the command to go up, and by and large that happened during the first part of our expansion program.

But in the past year we are spreading our skilled people so thin that we are not able to produce as much flying time as we should.

We do not have enough of these skilled people, so our combat effectiveness is degraded.

While we are putting another unit into the picture, and we have to add what combat effectiveness it has to the total, we are subtracting from all the other units in combat effectiveness so the sum total in combat effectiveness has not risen.

Mr. HAMILTON. Now would you say it is generally true that the more experience a crew has, the more combat effective they become?

General LEMAY. Yes; that is true.

Mr. HAMILTON. And would one of the important elements of experience be continuity of service, length of time of service?

General LEMAY. Yes. The longer you stay on the job the more experienced you become in that line of work.

Mr. HAMILTON. Would the much higher reenlistment rate in the Russian Air Force in contrast to the reenlistment rate of our own tend to give them in that regard at least an advantage from the standpoint of combat effeciveness?

General LEMAY. Yes. The more experience you have the more effective you would be.

Mr. HAMILTON. In view of the much higher reenlistment rate that the Russians have over our own enlistment rate, would you say that they have a much more nearly professional air force than we have, or are likely to have?

General LEMAY. Yes, I think that is a reasonable assumption.

Mr. HAMILTON. I do not know, I think this question may be somewhat at the periphery of your briefing, but would you say there is any reason to say that innately, so to speak, a Russian flyer has any less ability than an American flyer?

General LEMAY. I do not think so. I personally have had no contact with Russian pilots in the air. Those people that did think so, that were in combat with the Russians in Korea, seemed to think quite highly of them.

I do not know of any reason why they should be any less skilled than Americans with the same amount of experience.

Mr. HAMILTON. What would be your opinion in view of those circumstances, as to the relative effectiveness from the standpoint of personnel of SAC against the Russian long-range bomber air force, unless some measures are taken to give us a professional Air Force?

General LEMAY. I think that we must assume that they are build-

ing a very fine air force. It would be foolish to assume anything different.

Mr. HAMILTON. Thank you very much, General.

Mr. Chairman, that is all I had at this time, sir.

Senator SYMINGTON. Senator Jackson?

Senator JACKSON. It is quite apparent then, General, that the Soviets are out to make the Soviet Air Force an elite organization in their military establishment?

General LEMAY. Yes; all our indications show that that is true.

Senator JACKSON. Do they grant any additional privileges to their so-called SAC, their Strategic Air Command, do you know?

General LEMAY. I don't know; many applied to their long-range air force that are not applied to their air force as a whole.

Senator JACKSON. At least, as far as professional privileges are concerned, they have singled out their air force over and above their army and their navy?

General LEMAY. I don't know that to be a fact. I have only studied the air force, being particularly interested in that.

Senator JACKSON. I was referring to the charts where it appeared to be quite apparent that they were granting substantial pay differentials.

General LEMAY. Yes.

We studied an army captain just as a comparison, but I believe that all technical people in the Soviet forces are compensated for their technical skill.

For instance, I think I heard someone mention a while back that submarine crews and highly technical people of that sort receive more compensation, say, than an army captain would.

Senator JACKSON. In other words, in those areas where they are placing great emphasis on building up forces that will help to improve their defense posture, it is quite apparent that they are singling them out for special professional privileges, either in extra pay or allowances?

General LEMAY. That seems to be true.

Senator JACKSON. Do you think commercial airlines could operate with the kind of professional problems that you have in SAC?

General LEMAY. No; I don't think so.

Within the last month I have had the pleasure of having dinner with Mr. Paul Patterson of United Airlines, and Juan Trippe of Pan-American. I asked them that question, and described the personnel situation that I had, and they were frank to admit that they could not operate their airlines with a personnel situation like that.

Senator JACKSON. And yet our Strategic Air Command is the real deterrent that we have to a possible thermonuclear conflict in the world today; isn't that right?

General LEMAY. I believe that to be true; yes, sir.

Senator JACKSON. General, I was very much interested in the five-point program that SAC has developed. Has anything been done to move those recommendations forward through the Air Force and Department of Defense?

General LEMAY. Yes; they have all been forwarded to the Air Staff.

Senator JACKSON. How long ago?

General LEMAY. In segments, it goes as far back as 3 years.

Senator JACKSON. For 3 years?

General LEMAY. Yes.

Senator JACKSON. But, so far at least, there has not been any recommendation to Congress on all five of these points, to my knowledge.

General LEMAY. Well, I think that the Air Staff in the Department of Defense has been aware of the personnel problem for a long time, and actions have taken place, as we mentioned in the briefing, that have helped considerably, but we do not feel that the sum total of what the Department of Defense and the Air Force and Command action has been so far, has been enough to produce results which we have to have.

Senator JACKSON. What can the Congress do now in the way of implementing this program?

General LEMAY. I think that the Congress must pass some legislation that will make the career in the service as fully attractive as a career in civilian life.

Prior to World War II we had a requirement for a small Military Establishment, and we were able to find among our citizens a sufficient number of people who would dedicate themselves to public service and perform this duty with a low compensation, compared with what they might obtain in civilian life.

However, the situation that faces us today in the world requires that we maintain a large portion of our civilian population in uniform for our defense, and no longer can we find a sufficient number who are willing to bear this burden at the compensation that they are offered.

Senator JACKSON. Shouldn't we recognize that in modern warfare technology plays a very important role, and that we must utilize a tremendous number of technicians that we did not have to rely upon in the past? I mean, that trend is growing, is it not?

General LEMAY. That is true. The airman that we require today is a technical man, on the average. That has not been true in past years.

It is also true that in past years the force we had in peacetime organized into units was not expected to fight in combat. It was a nucleus upon which we built our Army after war was declared. It isn't true at the present time.

We will fight, and win or lose with what we have in being at the time. I think the decision as to what the ultimate outcome of the war will be will be decided by the people who are on duty at the time a war breaks out.

Senator JACKSON. This is really a new concept, is it not, this requirement for a larger force in being? We have won our past wars, have we not, General, by starting out with a few airplanes and building our force over a period of time, while a war was going on?

General LEMAY. Yes; that is true, and I think we have won our wars with citizens who came to arms after war was declared.

Senator JACKSON. I think it would be helpful, General, if you could give us a statement indicating the specific things we could do in the way of a bill of particulars, with an estimate of the cost and the changes in the law that would need to be made, in order to assist you in this personnel program. I think that would be a very helpful thing to have, Mr. Chairman.

I realize that it would be unfair to ask you to attempt to spell it out now, but if you could supply, at our request, that information, I know I personally would appreciate it.

General LeMay. I could offer you some suggestions but, by and large, I don't particularly care how this change comes about. I think that is a legislative matter. The results that I think we should have is that the career in the military service is somewhere close to the career that is offered in civilian life.

Senator Jackson. But in that connection, of course, we have to have some indication of what the pay schedule should be, especially where you want to single out technicians who are in the electronics field. You would then need a comparison, I take it, with the pay of electronics engineers in private industry?

General LeMay. We can do that for you.

Senator Jackson. Would you be good enough to submit those figures?

General LeMay. Yes, sir.

Senator Jackson. And then at the same time indicate what the savings would be, because, after all, I think it is only fair that you submit a balance sheet with it.

I take it it is your position there would be concurrent savings with those adjustments?

General LeMay. Yes.

Senator Jackson. That is all, Mr. Chairman.

Senator Symington. Senator Saltonstall.

Senator Saltonstall. Mr. Chairman, may I follow along the line in a little more detail that Senator Jackson has just been discussing?

General, you bring up a five-point program. The first is the pay structure. Now, Congress, as you state in that chart, has increased the reenlistment bonus, and it did increase the pay, I think, 10 percent on the average?

General LeMay. Yes.

Senator Saltonstall. Now, that, obviously, from the point of view of the Air Force, is not enough, or is not working out. Now, you stated that there were 239 specialties put into 7 grades, whereas the civil service has 40 grades for 175 specialties.

As a member of the Armed Services Committee, I know the problem is to try to work out the grades, and what I think would be an extremely helpful suggestion would be to see if you gentlemen could work out some new grades, so to speak, so that we could work those in for consideration without involving the old private, first-class private, corporal, sergeant, technical sergeant, and so forth. Do I make myself clear?

General LeMay. Yes, sir.

We have done that. We have come up with a suggested method that might fit our needs in the Strategic Air Command, and have forwarded that to the air staff. They are working on it, and are looking at it from the standpoint of the Air Force as a whole.

By and large, I think something that would fit our command would fit the Air Force as a whole.

Senator Saltonstall. That is where we could specifically help by creating new specialty grades. Do you see what I mean?

General LeMay. Yes, sir.

Senator Saltonstall. And that is where I think we could be of some assistance.

Now, on family housing, where you present some very difficult figures, in the last 3 years Congress has appropriated money for 29,000 units, I am told. I got that figure while you were talking.

And under the Capehart arrangement, there were 100,000 units that were authorized last year, and I believe they have a figure of 80,000 more units this year. In a broad, general way, how is the Capehart housing working? Is it helpful to the Air Force?

General LeMay. We think it will be. We do not have many Capehart houses yet, but the indications are that when they are built, they will be a better house, a somewhat better house, than the Wherry, and should be adequate.

Senator Saltonstall. And have you gotten some of those 29,000 units that were appropriated for in the last few years?

General LeMay. There have been none built as yet, but we have one, at least, on contract that I know of, at Abilene, and it is going to be quite adequate for us.

Senator Saltonstall. And Congress did appropriate a very substantial sum of money for housing last year, if my memory is right, along with these new bases, and so on. Considerable housing money went into that.

General LeMay. There was some housing money, but only a drop in the bucket, compared to our needs.

Senator Saltonstall. I agree.

Now, on the third point, dependent medical care, of course, the House has passed a bill, and the Senate committee yesterday, of which we gentlemen are members, sent a bill down to the Senate which would increase the Government costs approximately $55 million for dependent medical care, so putting that in dollars, estimated dollars, the armed services personnel, likely our good self and your people, will get dependent medical care in an additional amount of $55 million, so we hope that there is some progress made on that. You know about that bill?

General LeMay. I know about that bill. I am not familiar with it in detail.

Senator Saltonstall. That ought to be helpful, at least we hope it will be helpful.

General LeMay. It should be a help, but I believe that we are never going to be able to raise the pay of the man in the military service up to the level that he can expect in civilian life, and if I had my choice, I would not do it that way.

I would try to compensate for that shortage by things such as dependent medical care and post exchange, and so forth, to make him believe that he belongs to a select outfit. I think it is very necessary for a military organization to have that esprit de corps, and morale, if you want to call it that, to produce the best results. So medical care is one of the most important.

I know I personally would like to have the same physician that treats me treat my family, and I think most of the other people in the service would like that, too. They don't like to feel that they have one doctor, a good one, for them, and then have to go out and look for someone else who they don't know and have never seen before, to work on their family.

Senator Saltonstall. This bill is an effort toward making that possible. Now, how it will work out, we can only try by experience.

General LeMay. The one I saw was an insurance program that indicated that the medical care would be obtained in civilian hospitals for dependents.

Senator Saltonstall. It is in the military hospitals, as far as there is space and as far as the Surgeons General recommend. Then, if there isn't room in the military hospitals and there is no nearby military hospital, then he can go to a civilian hospital.

General LeMay. You see what is going to happen there is that the man will be taken care of in the military hospital and, by and large, we are short of facilities every place, which will force dependents into a civilian hospital, and he will not have the same doctor taking care of the family that is taking care of him.

Senator Saltonstall. We hope it works out more optimistically than you state.

Now, the other two points, educational rights, which interested me a great deal: Did you mean that a man should only get those educational rights on reenlistment, or would he be entitled to it on his first enlistment?

General LeMay. No, sir.

The GI bill of rights entitles a man to education when he leaves the service.

Senator Saltonstall. That's correct.

General LeMay. We believe that if he has earned it, and can collect it after he leaves the service, we should give it to him if he stays in and reenlists.

Senator Saltonstall. In other words, then, that is the point I wanted to make. If a man reenlists, then he ought to get the educational benefits that he would get it if he went out of the service after he became a GI?

General LeMay. Yes, sir.

Senator Saltonstall. And that would require legislation?

General LeMay. Yes, sir.

Senator Saltonstall. Now, the other point you made was restore commissary rights. The question was raised why the exchange is higher. Could you first elaborate on the second point? Why are the exchanges higher? I would be very interested to know.

General LeMay. The prices are higher in both the exchanges and commissaries mostly because of legislative restrictions that are placed on the operation of the exchanges and commissaries.

For instance, in the commissaries there is a surcharge. There is a limit to what you can sell, going into great detail on specific items, so that the legislative restrictions put on the operation of these two stores added up to higher prices.

Senator Saltonstall. You mean, the surcharge and the restrictions?

General LeMay. Yes.

Senator Saltonstall. So that what you would like to see would be a broader sale at commissaries of more articles. Could you describe the surcharge a little bit?

General LeMay. I would like to go back to the type of operation that we had prior to World War II, in which the commissary operated on a cost basis.

They paid their overhead, including rent of Government buildings and utilities used and things of that sort, so that operation was not

paid by the taxpayer at all, and the military people then were able to buy at cost.

The same was true in the post exchanges. You could go in and buy anything you wanted at cost plus a small profit which went into the welfare funds. If they did not have an item in stock that you wanted, you simply ordered it, and it was delivered to you at cost plus the profit and overhead.

That is not true now. You can only buy restricted items. With the restrictions placed on, you see what happens to the prices, because they must be operated at no cost to the taxpayer. What profit is made goes into welfare funds and relieves the taxpayer of taking care of those recreational items that they buy, that they would have to do otherwise.

Senator SALTONSTALL. So that, from a legislative point of view, your fundamental problems are the pay structure, restore commissary rights and change the educational rights, assuming the dependent medical-care bill is of assistance, and more adequate housing is provided in funds and in Capehart housing.

General LEMAY. Yes, sir.

Senator SALTONSTALL. Thank you, Mr. Chairman.

Senator SYMINGTON. Senator Ervin?

Senator ERVIN. General, is this not a fair inference from your testimony: That any reasonable prospect of avoiding a war is dependent upon our maintaining a military force in being sufficiently strong and efficient to deter any potential enemy from initiating an attack?

General LEMAY. Yes, sir; we think that is our main job.

Senator ERVIN. That is all.

Senator SYMINGTON. Senator Duff?

Senator DUFF. General, I scratched down 1 or 2 observations I would like to ask you about.

In view of the great expense of training, coupled with the fact that your personnel leave the service just when they become professional, why shouldn't the enlistment be 8 years instead of 4, because if it is not increased that way, even with the additional inducements, industry will still outbid you for these men, just as they do now, would they not?

General LEMAY. Yes, sir. We have gone into complete studies on that particular subject. What the rate of enlistment should be, I mean the length of enlistment should be.

We have gone everywhere from 1 year to 12 years. I don't think the 8 year enlistment now, without doing anything else, would solve our problem. In fact, I think it would complicate it, because it is one thing for a man to enlist and come in and stay for 4 years, knowing that he is going to get an education that will get him a good job when he gets out and the price is 4 years of his life, which mostly is spent in schooling.

It is another thing to ask him to pay 8 years of his life. Eight years is a long time for an 18 year old individual. I don't think it would help. I am not sure, but I think that is the result of studies that have been made by the Air Staff.

Senator DUFF. What prompted me to ask that question was the fact in almost every newspaper and magazine you see all types of industry advertising for scientists, engineers, mechanics, those skilled in electronics and so on, so that with the vast increase of the industry

of the country, there is an increasing competition for people of the competence that you develop in your 4 years' training; isn't that true?

General LEMAY. That is true, and by and large the military forces are training a lot of those people for industry.

Senator DUFF. In other words, just at the time when they become efficient, you lose them and industry is able to outbid you in price?

General LEMAY. Yes, sir.

Senator DUFF. There is one other question I want to ask you. In view of the statement we have just heard about the billions for hardware and peanuts for personnel, that would indicate that personnel is the prime necessity above all other considerations for the immediate——

General LEMAY. We have other problems. However, I believe that we would make the most gain by working on the personnel problems first, because the lead time on personnel is longer than the average.

It takes longer to train a man than it does to build an airplane.

Senator DUFF. Thank you, sir. That is all I wanted to ask, Mr. Chairman.

Senator SYMINGTON. General LeMay, as I understood it from this morning's briefing you were most efficient, personnelwise, in 1951; is that correct?

General LEMAY. Yes, sir. We believe that that is the best technical force we have ever been able to assemble.

Senator SYMINGTON. And since that time you have been slipping steadily?

General LEMAY. Yes, sir.

Senator SYMINGTON. Have you any knowledge as to whether the Russians have been slipping or improving?

General LEMAY. I would say that they were probably improving.

Senator SYMINGTON. There is a story in the Reader's Digest, a lead story this month that somebody brought to my attention, written by Francis and Katharine Drake, and having to do with personnel in the Air Force. I don't know these people. Do you know them?

General LEMAY. I met Mr. Drake, yes. He came out to the SAC headquarters as a consultant to the Secretary of the Air Force. He was given the same briefing that you have been given today.

Senator SYMINGTON. Have you read this article?

General LEMAY. Yes, sir; I have.

Senator SYMINGTON. Do you approve of it in general?

General LEMAY. In general, yes, sir. It tells a pretty good story.

Senator SYMINGTON. The first sentence is "Creeping paralysis is today overtaking our entire Air Force."

Now I would like to read a short statement from this article:

To replace these losses the Air Force is perpetually enlisting fresh volunteers. But it's an endless struggle: No less than 90 percent of the newly trained technicians quit at the end of their first 4-year term. This means that the average skill of our airmen is constantly sinking. Modern combat planes are tremendously complicated weapons, involving a total of 239 assorted skills. Men who work on them need long and costly training. It takes an enlistee 3 years to qualify for bomber maintenance; it costs $25,000 for his training. It takes 5 years and costs $618,000 to train the triple-rated commander of a B–47. When such men quit, not only does their training cost go down the drain but the same amount again must be forthcoming to train replacements.

In 1955 personnel losses in SAC alone cost the taxpayer $837 million. Losses for the entire Air Force totaled no less than $2 billion. In short, taxpayers are being forced to pay for the training of 10 men to retain 1.

Do you agree to that?

General LEMAY. Well, I don't have all those figures at my hand.

Senator SYMINGTON. I just mean the last statement. In general, is that a fair statement of your problem?

General LEMAY. Well, the average reenlistment rate of 30 percent, I would say it would be more like 3 to 1.

Senator SYMINGTON. Three to one?

General LEMAY. Yes. However, in some of the more technical skills, it is 10 to 1.

Senator SYMINGTON. Then it goes on several pages later to say:

With its critical shortage of maintenance men, SAC is obliged to hire technical representatives from industry to help out. Often as not these "tech reps" are ex-airmen themselves, trained at the taxpayers' expense. Working alongside Bill on identical jobs, the civilians are earning up to $1,200 a month, compared to Bill's $247 (including allowances). When Bill thinks about reenlisting, the facts of life on the outside are brought home to him.

Is that correct, based on experience?

General LEMAY. Yes, sir. We do have technical representatives from the manufacturers whose equipment we are using on most of our bases, mainly to help train our people to take care of it.

We have had instances where one of our enlisted men did not reenlist, went to the factory for a 3-month course, and appeared back at the same base as a representative at a higher salary.

Senator SYMINGTON. Naturally the taxpayer is paying in both cases, because he pays for the higher salary of the man and the cost of the electronic device that is bought by the Department of Defense, is that correct?

General LEMAY. That is correct; and naturally the taxpayer is paying for that technical representative also.

Senator SYMINGTON. General, you said that your Strategic Air Force is supposedly the greatest deterrent to war in the world, and only 8.4 percent of the personnel has been in for 4 years.

General LEMAY. Yes, sir; 4 years and more.

Senator SYMINGTON. You also, or General Wade in his briefing, said in the second year that they broke up almost more than they repaired. I believe that is your statement.

Is that correct, General?

General WADE. That is correct, sir.

Senator SYMINGTON. How many men have you got that have been there for only 2 years? Is it 25 percent?

General LEMAY. No; it is more than that. About 45 percent have been with us less than a year, and a greater percentage less than 2 years.

Senator SYMINGTON. I thought it was 45 and 25; is that right?

General LEMAY. About that.

Senator SYMINGTON. In other words, 60 percent of your people?

General LEMAY. Sixty percent.

Senator SYMINGTON. I had the second figure without tying it into the first. Do you operate under a ceiling on manpower? Based on the manning tables given, do you have only so many people, regardless of mission?

General LeMay. Yes; we have a table of authorization for all of our units plus a table of allowance to compensate for other practical problems on local bases, but we definitely have an authorized number of people assigned to the command.

Senator Symington. With respect to this problem of personnel, this morning we have been talking primarily about money, and to a lesser extent about security, but there is another item involved, and that is the safety of the men to whom we entrust these jobs. Is that a fair statement?

General LeMay. Yes, sir; I think so.

Senator Symington. Would you give the committee, if you consider it in order, the story about that ejector pin you gave us in Omaha.

General LeMay. The T–33 accident?

Senator Symington. Yes.

General LeMay. Yes, sir.

We have a very vigorous accident prevention campaign in Strategic Air Command, and one of the things I require is that after a major accident, the commander of that plane will appear at headquarters, Strategic Air Command, before me, my materiel officer, my operations and training officer, and flying safety officer, so that we can learn as much as we can about the accident, why it happened, what we have to do to try to prevent it happening again, any changes we must make in our operating procedures to give us a better chance of avoiding that type of accident, any changes we might have to make in the materiel equipment to help, and things of that sort.

Now, the accident I described was a T–33, a two-seater jet airplane; it was taxiing out for a takeoff when the ejection seat in the observers compartment fired, lifting the observer and seat and all some 30 feet in the air and depositing him on the ramp.

The man died of injuries the next day.

Now that can't happen, technically. The design of the equipment is such that it cannot fire on the ground.

In the investigation we could not find the safety pin on the equipment that would prevent this firing on the ground. The crew chief's form was initialed to the effect that it was inspected and in place prior to the airplane leaving the line.

Further investigation brought out the fact that the crew chief admitted that he had initialed that form and had not looked at the pin.

You think that the solution is all you have to do is court-martial the crew chief for criminal negligence and maybe it wouldn't happen any more. But the crew chief in this case is a 19-year-old kid.

He has been with us about a year, a very high type individual, a smart youngster, crewing this jet airplane, doing it ahead of his contemporaries because he is a better man than his contemporaries, but he is 19 years old. He has not been with us long enough to know that a mistake in the airplane is liable to kill somebody.

What is the answer? If you court-martial him, you would probably ruin his career in the Air Force, maybe accomplish something to convince other people they should be more careful.

I did not think that was the solution. He understands he made a mistake. He is back working on the airplanes, and I think he will be a good mechanic for the Air Force.

But that is the sort of thing you run into with inexperienced people working on complicated equipment such as we have in the Air Force.

Senator SYMINGTON. My time is up. Mr. Counsel?

Mr. HAMILTON. I have nothing further.

Senator SYMINGTON. Senator Jackson?

Senator JACKSON. There is just one question.

General, you mentioned that the personnel situation is critical in SAC, and in your judgment it is the No. 1 problem.

In making that statement I assume, however, you would not want to say that you will not need additional planes to carry out your mission?

General LEMAY. No, sir. The personnel problem is only one of several problems that we have had facing us. However, I think that money spent on personnel will help us operate more efficiently with the equipment that we have.

Senator JACKSON. What you have in being now?

General LEMAY. Then we will also need more, of course.

Senator JACKSON. In other words, it is a twofold objective. You want to make more effective use of your present delivery system, and as you get new planes, you want the professional talent to make those new planes more effective?

General LEMAY. Yes.

Senator JACKSON. Or combat ready?

General LEMAY. We need additional capability. The efficient approach to the problem would be to use what you have, what equipment you have, in the most efficient manner, and then go on to some addition.

Senator JACKSON. I merely wanted to clarify this lest there be any misunderstanding that it was just a shortage of personnel alone.

General LEMAY. No. We have other problems, too, equipmentwise and basewise.

Senator DUFF. I would like to ask one more question.

Personally, I am very much in sympathy with the briefing which you gave, and I just wondered if there was any preliminary estimate of the cost along the lines that have been suggested as a program.

General LEMAY. I don't have the figures; no, sir.

Senator JACKSON. I asked that that be submitted, a complete statement on that, on the 5-point program.

Senator DUFF. Yes; I think that would be very instructive.

General LEMAY. We could get that, but I don't think it would be very helpful to you for our own command alone. We should get the Air Staff to submit one for the Air Force as a whole.

Senator DUFF. I felt it would be very instructive so far as your command was concerned, and it could be applied generally, if we had the figures for your personnel.

General LEMAY. We can do that, sir. We will present those figures.

Senator JACKSON. Senator Saltonstall?

Senator SALTONSTALL. General LeMay, when you boil this right down on those five points that you mentioned, the one that is the most important, assuming that Congress makes some progress each year on the others, is the question of pay, is it not?

General LEMAY. Yes, sir; I think so.

Senator SALTONSTALL. In the technical phase what appeals to me enormously is the fact that, as you brought out, there are today only

7 grades among you people, whereas civil service has a figure like 35 grades, and private industry has a substantial number of more grades.

You stated you made some recommendations on that subject to the Air Force here in Washington?

General LEMAY. Yes, sir; we have.

Senator SALTONSTALL. And the recommendations that you have made, if put into effect—they will be an experiment in the future. That is about what it amounts to, isn't it, to see how they work? You are not confident that they are going to work, but you are hopeful?

General LEMAY. Yes. I think that they will produce the results that we want, which is a higher reenlistment rate and more people choosing a career in the Military Establishment.

Senator SALTONSTALL. And next to pay, the medical service for dependents, a satisfactory method of medical service, fringe benefits, as they call them, is the most important?

General LEMAY. Yes. All of these fringe benefits, I think, are important.

Senator SALTONSTALL. And then you come down, probably, to housing as the next important, and the commissary as the next important, and then the educational is the fifth?

General LEMAY. I don't know that you can put any priority on these things, Senator. They all are necessary to produce the results that we want.

Senator SALTONSTALL. Mr. Chairman, thank you.

Senator SYMINGTON. Senator Ervin?

Senator ERVIN. No questions.

Senator SYMINGTON. Senator Duff?

Senator DUFF. No questions.

Senator SYMINGTON. General, we are very grateful to you. We look forward to seeing you Monday at 2 o'clock.

It will be an open hearing, and we look forward to seeing you then. Thank you and your staff for a fine briefing.

(Whereupon, at 12:15 p. m., the subcommittee recessed, to reconvene at 2 p. m., Monday, April 30, 1956.)

STUDY OF AIRPOWER

MONDAY, APRIL 30, 1956

UNITED STATES SENATE,
SUBCOMMITTEE ON THE AIR FORCE
OF THE COMMITTEE ON ARMED SERVICES,
Washington, D. C.

The subcommittee (consisting of Senators Symington, Jackson, Ervin, Saltonstall, and Duff) met, pursuant to recess, at 2 p. m., in the Old Supreme Court Chamber, United States Capitol, Senator Stuart Symington (chairman of the subcommittee) presiding.

Present: Senators Symington (presiding), Jackson, Saltonstall, and Duff.

Also present: Senator McClellan of Arkansas.

Fowler Hamilton, general counsel; Ramsay D. Potts, Jr., associate general counsel; Fred B. Rhodes, assistant to Senator Saltonstall; Edward C. Welsh, assistant to Senator Symington; Wallace L. Engle and Ronald Friedenberg, staff members.

Senator SYMINGTON. The meeting of the Subcommittee on the Air Force of the Armed Services Committee of the Senate will please come to order.

General LeMay, will you consider that you are still sworn?

TESTIMONY OF GEN. CURTIS E. LeMAY, COMMANDER IN CHIEF, STRATEGIC AIR COMMAND—Resumed

General LEMAY. Yes, sir.

Senator SYMINGTON. Senator Saltonstall, have you any comments at this time?

Senator SALTONSTALL. None that I know of, Mr. Chairman.

Senator SYMINGTON. Senator Duff?

Senator DUFF. No, sir.

Senator SYMINGTON. This afternoon we will hear testimony from Gen. Curtis LeMay, commanding general of the Strategic Air Force.

Because of certain considerations, special arrangements have been made with respect to General LeMay's testimony today. Last week, General LeMay was given certain questions. He has prepared answers to those questions and submitted them to the Department of Defense for security review.

General LeMay's testimony this afternoon will consist of answers to these questions, and it is planned that no other questions will be put to the general this afternoon.

In light of the answers General LeMay gives to the questions that have already been submitted to him, certain additional questions will be given to him in writing later in the day.

General, we have some we would like to give you at the close of this hearing.

General LeMay will prepare answers to those questions, submit both questions and answers to the Department of Defense for security review, and return to testify before this committee in open hearing at 2 o'clock tomorrow afternoon.

May I say, if any Senator has additional questions he would like to ask of General LeMay tomorrow, the Chair would appreciate it if they were given to the Chair today.

I should like to say again, in fairness both to his superiors and to the Department of Defense, and in fairness to General LeMay himself, that he alone will make the decisions as to the information he gives and as to the facts he will state.

And again, speaking for myself, I earnestly hope it will not again be necessary to adopt such a restrictive method in presenting publicly such important information upon a subject so vital to our country's welfare as the relative strength of our Air Force as against that of the Soviet bloc.

Following the open hearing today at which time General LeMay will testify, there will be a closed hearing. At the closed hearing the committee will hear evidence for the first time from Gen. Earle E. Partridge, commanding general of the Air Defense Command and commanding general of the Continental Air Defense Command, concerning the competency of that part of the Air Force which he commands to discharge the responsibility for the missions assigned it.

Senator SALTONSTALL. Mr. Chairman, in response to your statement there about questions, Senator Duff and I have prepared a few questions which we will be glad to submit to you now, if you would care to have them; and, of course, subject to any additions that may come at some time this afternoon.

We have those stated questions now on his previous testimony. If you care to have them submitted to you now, or wait until the session is over——

Senator SYMINGTON. You mean questions that have been submitted to the Department of Defense?

Senator SALTONSTALL. No. They have not been submitted to the Department of Defense. We were planning to submit them to the counsel or to you and to the counsel, in accordance with our previous understanding.

Senator SYMINGTON. Fine.

Senator SALTONSTALL. So those questions are ready now.

Senator SYMINGTON. We will, of course, also submit to you today, when the hearing is over, those questions which we plan to submit to General LeMay today for tomorrow.

Senator SALTONSTALL. We thank you for that. Do you want those questions now?

Senator SYMINGTON. No. I think we will wait until this part of the hearing is over.

General LeMay, we will have Mr. Hamilton read the questions to you, and then you will please reply to these questions as they are read.

It is my understanding that at the close of the hearing, you also have a statement that you would like to make; is that correct?

General LEMAY. Yes, sir.

Senator SYMINGTON. When the questions have been read and answered, then will you please make your statement?

General LEMAY. Yes.

Senator SYMINGTON. Mr. Hamilton?

Mr. HAMILTON. Thank you, Mr. Chairman.

General LeMay, what is SAC?

General LEMAY. Strategic Air Command is the long-range atomic striking force of the United States. It is responsible to the Joint Chiefs of Staff through the Chief of Staff of the United States Air Force as the executive agent.

Mr. HAMILTON. General LeMay, what is the principal responsibility of SAC?

General LEMAY. The mission of the Strategic Air Command is to train and maintain an effective and secure nuclear air offensive force to conduct strategic air warfare. The objective of this mission is to become and remain sufficiently strong to deter aggression during a cold war and, in cooperation with other United States and allied forces, to win the decisive airpower battle in a general war should it occur.

Mr. HAMILTON. General, what are your views as to the best defense against a strategic atomic air attack?

General LEMAY. Total defense is secured through two functions: First, through active and passive defense; and second, the offensive strike capability. All responsible airmen agree that it is impossible to provide an airtight defense against a well coordinated and properly executed atomic bombing attack.

Attrition will vary, depending upon the relative capabilities of offense versus defense, but a substantial part of the offensive force will always get through the defenses. Therefore, the primary defensive force becomes the offensive atomic strike capability of sufficient effectiveness to provide a deterrent force.

A deterrent force is an effective nuclear offensive force which is secure from destruction by the enemy regardless of what offensive and defensive action he takes against it. The striking force is considered effective if it can still inflict unacceptable damage on the enemy.

Mr. HAMILTON. Thank you, General.

I would like now to ask you the fourth question: If two countries have the same relative scientific and military airpower, such as the United States and the U. S. S. R., is it in your opinion possible for one country to have purely defensive forces and measures adequate to effectively stop a strategic atomic air attack by the other country?

General LEMAY. I think that I have just answered that question by saying that it is the opinion of all responsible airmen, and the experience of all nations in wartime, that a purely defensive force cannot effectively prevent a substantial portion of a properly coordinated and appropriately executed bombing attack from getting through.

Mr. HAMILTON. General, against what must SAC's required combat effectiveness be measured?

General LEMAY. Strategic Air Command has a double role under present national policy. First and foremost, it must possess sufficient strength and readiness to deter open aggression against the United States and its allies. Second, in the event such aggression does occur,

SAC must be capable of immediate and decisive attacks against the enemy's warmaking capability.

All modern military men, whether they be airmen, soldiers, or sailors, agree that no surface military tasks can be undertaken until air superiority is achieved. Therefore, the first thing that must be done in modern war is to win the airpower battle. Our required combat effectiveness must therefore be measured against this task.

Mr. HAMILTON. Now turning to the next question, General, I would like to ask you: Has SAC's combat effectiveness been adequate to enable it to discharge its responsibilities since World War II?

General LEMAY. Yes, the Strategic Air Command has been maintained, as a matter of top priority, in a high state of combat readiness for immediate air offensive operations as required. It is considered that this readiness capability has provided the free world with its most effective deterrent to general war.

I would like to quote from one of Mr. Winston Churchill's speeches given in the Parliament of England last April:

> The United States Strategic Air Command is a deterrent of the highest order and maintains ceaseless readiness. We owe much to their devotion to the cause of freedom in a troubled world. The primary deterrents to aggression remain the nuclear weapon and the ability of the highly organized and trained United States Strategic Air Command to use it.

Mr. HAMILTON. Thank you.

Now the next question, please, General: Does SAC now have combat effectiveness sufficient to enable it to discharge its principal responsibility, that is, at the present time?

General LEMAY. Yes; at the present time, and in spite of recent Soviet gains in aircraft and weapons technology and production, it is considered that SAC continues to maintain sufficient advantage over the Soviet offensive capability to enable accomplishment of its primary roles. We must recognize, however, that a new factor has entered the equation, and that is that the Soviet Union has a longe-range attack capability that it did not have 5 years ago.

This factor creates the possibility of an initial surprise attack upon SAC, which in turn would reduce its deterrent power and retaliatory capability.

However, under any reasonable set of assumptions we believe we now have the capability of winning any war the Soviets might start. We are not capable of winning it without this country receiving very serious damage. Five years ago we could have won the war without the country receiving comparatively serious damage.

Mr. HAMILTON. Now to the next question, General: Is SAC stronger than the Soviet long-range air force at the present time?

General LEMAY. At the present time; yes.

Mr. HAMILTON. Now I would like to ask you, General, what are the three principal elements of SAC's combat effectiveness?

General LEMAY. Aircraft and other equipment, weapons, a base system that is adequate for the support of the equipment, and skilled technicians and professional people to maintain and operate the aircraft and other equipment.

Mr. HAMILTON. How many wings do you have now in SAC?

General LEMAY. Fifty-one.

Mr. HAMILTON. What different types of aircraft are there in these 51 wings?

General LEMAY. We have B–36's, B–52's, B–47's, RB–47's, F–84F's, RF–84F's.

The B–36's and B–52's are long-range heavy bombers. The bulk of our force is composed of the medium jet bomber, the B–47, which with sufficient refueling is capable of intercontinental operations.

Mr. HAMILTON. What are the RB's, General?

General LEMAY. Reconnaissance.

Mr. HAMILTON. And the RF's?

General LEMAY. Reconnaissance version of the fighter.

Mr. HAMILTON. And the F's are fighters, are they?

General LEMAY. Fighters.

Mr. HAMILTON. When was the plan for the present number of SAC's combat wings established?

General LEMAY. It was established in 1953 in connection with the 137-wing program which the Air Force is now concluding.

Mr. HAMILTON. Has there been any change in this plan since it was established?

General LEMAY. Yes; there have been minor changes, but none of consequence.

Mr. HAMILTON. Now I should like to ask you, has Russian offensive and defensive airpower increased more since the plan was established than we thought it would?

General LEMAY. Yes; we did not think that some of the improvements the Soviets have shown would occur as soon as they have.

Mr. HAMILTON. I would like to ask you, General, are there any present plans for increasing SAC's combat wings beyond those called for by this plan to which you have referred?

General LEMAY. No; not that that I know of. However, certain changes in the internal composition of the strategic force have been made, and further changes are under consideration in recognition of the increasing requirement for heavy jet bombers with an intercontinental capability.

Mr. HAMILTON. Now, General, I would like to ask you, is SAC's combat effectiveness in comparison to that of the Russian LRAF, Russian long-range air force, growing, or is it remaining the same, or is it weakening?

General LEMAY. Based on present programs known to me and the accepted estimates on what the Soviet program is, SAC's relative strength is expected to decrease.

Mr. HAMILTON. If no changes are made in the present plans and programs for SAC, will SAC's power to discharge its responsibility weaken between now and the period of 1958–60?

General LEMAY. The present plans for SAC will insure an increase in combat capability between now and 1960. However, in spite of this increase, if our estimate as to what the Soviet production in the long-range bomber field is, is correct, SAC's relative power to discharge its responsibility will decline during the time period.

Mr. HAMILTON. What will be the effect upon SAC's power to discharge its principal responsibility by the period 1958–60 if SAC's combat effectiveness is not increased beyond present plans and programs?

General LEMAY. As the relative strength of SAC and the Soviet long-range air force changes in their favor, our ability to carry out our primary mission is lessened.

Mr. HAMILTON. Could the United States be taking measures not now planned or programed?

General LEMAY. Yes. There are measures not now planned or programed that could be taken to improve our future strategic air position.

Mr. HAMILTON. What different kinds of long-range bombers, General, do we now have in operation?

General LEMAY. B–36's; B-52's.

Mr. HAMILTON. Which, if either of these, is becoming obsolete?

General LEMAY. The B–36.

Mr. HAMILTON. Directing your attention to the Russian situation, what different kinds of long-range bombers do the Russians now have and which, if any, of these is becoming obsolete?

General LEMAY. The Soviets now have the Bear, which is a turboprop aircraft; the Bison, which is a jet-powered aircraft comparable to our B–52. These are new aircraft and neither is obsolete.

Mr. HAMILTON. General, is it not a fact that the quality of Russia's modern long-range bombers, the Bear and the Bison that you have mentioned, is comparable to that of our own aircraft of the same type, that is to say, our B–52?

General LEMAY. If our estimates as to the performance characteristics of the Bison are accurate, then it is comparable to our B–52. The Bear, while a long-range bomber, is a turboprop-powered aircraft, and therefore its performance is greater in range but less in speed and in altitude than that of the B–52.

Mr. HAMILTON. Thank you.

Is it not the fact, General, that Russia is now producing its two types of modern long-range bombers at a combined rate that is higher than our present rate of production of the B–52?

General LEMAY. If our estimate of Soviet production is accurate, then they are producing Bears and Bisons at a combined rate substantially higher than we are producing B–52's.

Mr. HAMILTON. Is it not also a fact, General, that we do not now plan to increase our rate of B–52's to a point where it will equal the Russian rate of production of their two modern type bombers?

General LEMAY. The Air Force does not now plan to increase the rate of production of B–52's to a point where it will equal the estimated combined rate of production of their two modern-type bombers.

Mr. HAMILTON. Is it not a fact, General, that the Russians now have in their Air Force more modern long-range bombers than we have?

General LEMAY. I assume you do not consider the B–36 as being a modern bomber. We believe they have more Bisons and Bears in their inventory than we have B–52's.

Mr. HAMILTON. Now, General, assuming no change in our present plans and programs, what, in view of our estimate of Russian production, would be the approximate relationship between our modern long-range aircraft force and that of the Russians by the period 1958–60?

General LEMAY. At the period of 1958–60, and under the assumptions stated, the Soviet Air Force will have substantially more Bisons and Bears than we will have B–52's.

Mr. HAMILTON. General LeMay, is it not a fact that unless there is a change in our present plans and programs, the Russian long-range

air force will have greater striking power than SAC by the period 1958–60?

General LEMAY. It is very difficult to answer unequivocally a question dealing with striking power during this time period. Striking power is a function of aircraft, weapons, bases, refueling capability, maintenance, and training.

Under the assumptions stated in the question, the Soviets will enjoy a numerical advantage in long-range bombers in the period 1958–60. We would be foolhardly to assume they would not also provide the weapons, bases, refueling capability, maintenance capacity, training, and professional personnel to support this numerical superiority in aircraft.

I can only conclude then that they will have a greater striking power than we will have in the time period under our present plans and programs.

Mr. HAMILTON. Is it not a fact that under our national policy of peace and nonaggression, we must have an Air Force adequate to meet a surprise attack?

General LEMAY. Yes.

Mr. HAMILTON. Does this not mean that we should have a long-range Air Force that, from the standpoint of striking power of its aircraft, is considerably stronger than that of the Russians?

General LEMAY. If we sffer a surprise attack, it is reasonable to assume that we will suffer losses to our force. The remainder should be strong enough to inflct damage on the enemy that will be unacceptable to him if we are going to succeed in deterring an attack in the first place.

It is then reasonable to assume that the original force without losses should certainly be initially stronger than the Soviet force.

Mr. HAMILTON. Will we, by the period 1958–60, have such a long-range Air Force under present plans and programs?

General LEMAY. I have already brought out that the Soviets will have a numerical advantage in long-range bombers during the time period, and again assuming they will provide bases, weapons, maintenance capability, refueling capacity, and training to support this numerical advantage, then we will be inferior in striking power to the Soviet long-range air force by 1958–60.

Mr. HAMILTON. Do you think there should be an increase in the number of B–52 bombers presently planned for SAC, General?

General LEMAY. Yes, I believe that we should maintain the deterrent position that we have had over the past 10 years. I think this means an increase in the planned number of B–52's. Our force should be equipped with modern equipment, in sufficient quantity, at a rate that can be produced by our industry and absorbed by our units, and supported by our base structure, without unacceptable dislocation of industry and the national economy.

Mr. HAMILTON. Under present programs and plans, will SAC's bases be adequate by 1958–60?

General LEMAY. In general terms, the plan for expansion of the Air Force has developed ahead of the base structure to support it. The building of the bases has lagged behind the production of airplanes to form the wings; this has resulted in a shortage of bases and a crowding up of units and aircraft on bases.

During the 1958–60 time period, the overseas base structure will generally provide an adequate capability for the Strategic Air Command. There will still exist some shortage of ZI bases.

This will be overcome to a degree by the expeditious construction of additional bases that are currently programed. However, this will still not provide the desired degree of dispersal and will not give the desired base posture.

Mr. HAMILTON. Thank you, General.

If changes are made in present programs and bases immediately, will it be possible to have an adequate base structure, in your opinion, by 1958–60?

General LEMAY. Changes in present programs and bases would permit an early beneficial occupancy date for some ZI bases, but because of the short construction season in the northern regions, would not insure a completely adequate base structure by the 1958–60 period.

Mr. HAMILTON. Why has the provision of bases generally lagged behind the provision of aircraft?

General LEMAY. As a general rule, it is easier to obtain money for airplanes and equipment than it is to get public works funds for bases, including housing.

Mr. HAMILTON. General, I would like to ask you if, in your opinion, it is necessary for the various elements of SAC's combat effectiveness that you have mentioned, to be maintained in a state of balance?

General LEMAY. Yes. The effectiveness of the strategic bomber offensive will be directly proportional to the availability of modern aircraft manned by highly trained personnel, an adequate air refueling force, and properly dispersed and protected bases.

Mr. HAMILTON. Now I should like to turn to the question of jet tankers, General Lemay, and ask you: What is the significance of a proper ratio between jet tankers and jet bombers?

General LEMAY. The ratio of jet tankers to jet bombers takes into consideration the range of the bomber itself, the bases from which they will operate, and the targets against which those bombers are directed. A bomber is not very useful unless it has the range to go from its base to the target.

The present state of the art requires that tankers be provided in some cases to obtain this range.

Mr. HAMILTON. Why is the jet tanker more valuable to SAC than the piston-prop tanker?

General LEMAY. The slower conventional tanker, in order to make proper contact with its bomber, must depart up to several hours before the bomber. The bomber, forced to wait on the ground, is then exposed to enemy attack.

The airplanes we are now refueling are jet airplanes. A jet tanker has the same general performance characteristics as the bomber and, therefore, can accompany the bomber, eliminating the rendezvous problems.

In addition, the performance of the jet tankers is such that the refueling altitude is at a height above most of the weather, eliminating weather problems, and adds to range because the bomber does not have to descend to piston-engine altitudes to receive its load of fuel.

Mr. HAMILTON. Against that background, General, how would you describe the situation that would exist under present programs as to

the ratio between jet tankers and jet bombers in the period 1958–60?

General LeMay. The ratio of tankers to bombers that we now have programed is the best compromise we could come up with at the time the program was laid down. However, we could increase our intercontinental strike capability considerably from our planned base structure and with the same size of bomber force if we had more tankers than we are now programed to have.

Mr. Hamilton. If present plans were changed to establish an adequate ratio between jet tankers and B–52's, would this require the acquisition of substantially more jet tankers than is now planned?

General LeMay. Yes, this would require substantially more jet tankers.

Mr. Hamilton. If the decision were made promptly to acquire these additional jet tankers, could a satisfactory ratio be established between now and the period 1958–60?

General LeMay. Yes. If prompt action were taken now, I believe that the desired tanker force could be provided by 1960.

Mr. Hamilton. Thank you.

Are your maintenance and operations funds now adequate?

General LeMay. In the 1956 budget appropriations, Strategic Air Command lacked $36 million having sufficient M. and O. funds to purchase support equipment, to maintain our real estate and to purchase other operating supplies. However, the lack of this $36 million has not, at the present time, reduced our combat effectiveness.

If, however, it is not made up in the 1957 budget, it will reduce our combat effectiveness. We have included in our 1957 budget the additional $36 million, but Congress, of course, has not acted on this budget as yet.

Mr. Hamilton. General, is it not a fact that Soviet defensive capability has greatly improved in the last 5 years?

General LeMay. It is reasonable to assume that they would progress in their defensive capability, and I believe they have.

Mr. Hamilton. Now I come to my final question, General: What is your view of the relationship between the long-range bomber force and the intercontinental ballistic missile?

General LeMay. The ICBM has a potential of being a good weapons system in the future. We should, by all means, press forward with our research and development program to produce this weapon at the earliest possible date.

However, there are many difficult problems in this program, and I believe that the first model of the weapon, both ours and the Russians', will be less efficient than the manned bomber.

As time goes on, this efficiency should increase and the weapon become more reliable and useful. I think it reasonable to say that the first ICBM will augment the manned bomber force; and at some later date will supplant a portion of the manned bomber force.

But I do not believe that in the foreseeable future the ICBM will replace all of the manned bomber force.

Mr. Hamilton. Thank you, General LeMay.

That concludes the questions that we had this afternoon. I understand that you have a statement that you would be willing to read, and I would appreciate it if you would give the committee the benefit of your views in that statement now.

76922—56—pt. 2——4

General LeMay. Yes, I would very much like to make a final statement, in the hope that I may further clarify to some extent our air offensive requirements.

I think we should insure that certain aspects of the problem are made as clear as possible. I should emphasize here that all the testimony that I have given, both in the closed hearings and in the open hearings, has been my own personal opinion based on my own experience, and may or may not be the views of the other members of the national defense team.

For the time period we have had under discussion, that is, for the next few years, I believe that your questions and my responsibilities have made it clear that, in my opinion, our offensive capability in terms of a long-range strategic air force could be improved considerably by the following actions if they are promptly taken:

First, the selection and retention within the force of highly skilled technicians and professional combat crews.

Second, the provision of an adequate base structure and other required facilities to permit the force to assume a more effective defensive and offensive posture.

Third, the provision of additional equipment, including long-range jet bombers and jet tankers to expand the force into as nearly certain a deterrent to war as it is possible to attain.

I am fearful though the impression might prevail that if these requirements were to be met in the next few years, we will have reached a point where we could face the future with some degree of complacency. Nothing could be further from the truth.

Meeting the requirements for skilled personnel, professional combat crews, necessary facilities, adequate bases and a satisfactory defensive and offensive posture within the next few years is only an interim measure we are able to take with corrective action that is practicable now.

The problem of security is a dynamic one. The rate of progress achieved by the Soviets in the past few years demonstrates this. There is no indication that their rate of progress will not be sustained. It might even be accelerated.

As their appreciation of the significance of air offensive power grows, our efforts to retain the deterrent advantage must be continuous. This means that research and development for the weapons system of a few years from now must receive increased emphasis and vigorous attention today.

I have previously stated my views on the ICBM and the requirement for hastening its operational date as a matter of first priority. I also stated that in my opinion the manned bomber will be used by us as a primary means of long-range weapons delivery for several years to come.

Therefore, it is most important that we address our efforts and our scientific and production capabilities to the development and production of the manned bomber "follow-on," or successor to the B–52/KC–135 combination, at the earliest possible date.

We must have a modernized force in being to meet each new threat as it develops. Attempts to catch up once we have been overtaken can only result in keeping us off balance and in surrendering our ability to deter.

Finally, no military force can be any more effective than the logistic system which supports it and the physical plant which sustains it. There must be continued modernization of our logistic system to keep it abreast of our force modernization.

And last, but not least, if we are to derive a full measure of security from each dollar we invest in the force, there must always be provision of sufficient funds for the maintenance and operation of our physical plant, our aircraft, and our supporting equipment.

Mr. HAMILTON. Thank you very much, sir.

Senator SYMINGTON. Thank you, General.

Here is a list of additional questions that we would like to give you now and have you discuss later.

I think Senator Saltonstall has some he would like to give you, also.

Senator SALTONSTALL. General, there are five questions that Senator Duff and I composed after discussion this morning. I would just say that we want to reserve the right, Mr. Chairman, if anything occurred before we reach, say, 5 o'clock this afternoon, to submit 1 or 2 additional questions.

I do not think there will be——

General LEMAY. I will start getting clearance on these from the security standpoint, and preparing myself. I will be over there at the Pentagon; if you want to talk to me, I will be there.

Senator SALTONSTALL. I think some of your statements today may have answered, in part, some of our questions; but if you could answer them under each heading, we would appreciate it.

General LEMAY. Yes.

Senator SALTONSTALL. Thank you.

Senator SYMINGTON. The next witness will be General Partridge, commanding general of the Air Defense Command.

Is General Partridge here?

I am sorry, this will be an executive session, and therefore we will have to ask for the room to be cleared.

(Whereupon, at 2:35 p. m., the subcommittee recessed, to proceed in executive session.)

STUDY OF AIRPOWER

WEDNESDAY, MAY 2, 1956

UNITED STATES SENATE,
SUBCOMMITTEE ON THE AIR FORCE,
OF THE COMMITTEE ON ARMED SERVICES,
Washington, D. C.

The subcommittee (consisting of Senators Symington, Jackson, Ervin, Saltonstall, and Duff) met, pursuant to recess, at 1:30 p. m., in room 318, Senate Office Building, Senator Stuart Symington (chairman of the subcommittee) presiding.

Present: Senators Symington, Jackson, Saltonstall, and Duff.

Also present: Fowler Hamilton, general counsel; Ramsay D. Potts, Jr., associate general counsel; Fred B. Rhodes, assistant to Senator Saltonstall; Edward C. Welsh, assistant to Senator Symington; Wallace L. Engle, and Ronald Friedenberg, staff members.

Senator SYMINGTON. The meeting of the Subcommittee on the Air Force of the Senate Committee on Armed Services will please come to order.

General LeMay, will you resume?

TESTIMONY OF GEN. CURTIS E. LeMAY, COMMANDER IN CHIEF, STRATEGIC AIR COMMAND—Resumed

Mr. HAMILTON. Is it not vital that SAC's strength be considerably more than the strategic air strength of Russia, because the United States would never make the first all-out nuclear attack; and much of its strength would be destroyed if the enemy made such an attack?

General LEMAY. If we suffer a surprise attack, it is reasonable to assume that we will suffer losses to our force. The remainder should be strong enough to inflict damage on the enemy that will be unacceptable to him if we are going to succeed in deterring an attack in the first place. It is then reasonable to assume that the original force without losses should certainly be initially stronger than the Soviet force.

Mr. HAMILTON. Is it not true that if the present programs of the United States and Russia continue, within 4 years at the latest the strategic air force of Russia will be superior in intercontinental bombers to that of the United States?

General LEMAY. Yes; if our estimates of Soviet production are correct.

Mr. HAMILTON. In your answer to question 9 you actually list 4 elements, including weapons. Is it not a fact that at this time SAC is short in three elements; viz., skilled personnel, aircraft, and bases?

General LEMAY. I have testified previously that if we were forced into a war with the Soviet Union now we would probably win. It

therefore follows that we are not now critically short in any of these elements since we believe we are capable of winning the war. However, it is true that the aircraft we have could be operated with a greater degree of efficiency than is now possible if we had more skilled personnel and more bases.

Mr. HAMILTON. How many planes are there in a wing?

General LEMAY. A SAC B–47 wing normally has a complement of 45 aircraft; a B–36 wing normally has a complement of 30 aircraft. Our fighter wings, as other fighter wings in the Air Force, have a complement of 75 aircraft. I have already discussed the B–52 complement in closed hearings. For security reasons, I feel I should not discuss it in public.

Mr. HAMILTON. In your answer to question 11 you say the bulk of our force is composed of the medium jet bombers, the B–47, which, with sufficient refueling is capable of intercontinental operations. Do you believe that at this time we have sufficient refueling capacity?

General LEMAY. I have previously testified that if we were forced into a war with the Soviet Union today we would probably win. It therefore follows that we have a reasonably adequate refueling capacity at the present time.

However, it is true that we could get more bombs on the target in a shorter period of time if we had more tankers.

Mr. HAMILTON. Do you believe it is planned to have that sufficient refueling capacity at any time in the foreseeable future; and if so, when?

General LEMAY. I have just testified that if we were forced into war with the Soviets at the present time I think we could win. It therefore follows that we have a reasonably adequate refueling capacity at the present time.

However, as our relative strength declines in the future we could use more refueling capacity. I know of no plan that will furnish the number of tankers necessary to give us maximum efficiency.

Mr. HAMILTON. Do you not have tankers? If so, how many wings of tankers are included in the 51 total?

General LEMAY. Yes; we do have tankers. Tanker squadrons are an intgeral part of the wing structure. We have 36 such squadrons.

Mr. HAMILTON. How many jet tankers are now in the Air Force?

General LEMAY. None.

Mr. HAMILTON. How many B–52's were produced up to January 1, 1956?

General LEMAY. We consider B–52's have completed production when they have completed shop assembly. Up to January 1, 1956, 57 B–52's had completed shop assembly.

Mr. HAMILTON. How many were accepted by the Air Force?

General LEMAY. Forty-one.

Mr. HAMILTON. How many were produced in February 1956?

General LEMAY. Six had completed shop assembly.

Mr. HAMILTON. How many were accepted by the Air Force?

General LEMAY. Two.

Mr. HAMILTON. How many were produced in March 1950?

General LEMAY. Six.

Mr. HAMILTON. How many were accepted by the Air Force?

General LEMAY. None.

Mr. HAMILTON. How many were produced in April?

General LEMAY. Five.

Mr. HAMILTON. How many were accepted by the Air Force?

General LEMAY. None. Most of the B–52's produced and not accepted in February, March, and April have not been accepted because of a component failure for which we now have a solution.

Mr. HAMILTON. Is it not true that every time a B–52 replaces either a B–36 or a B–47 it makes for a more effective strategic air force?

General LEMAY. Yes.

Mr. HAMILTON. Are there 6 wings of F–84F's in SAC?

General LEMAY. Yes.

Mr. HAMILTON. Specifically were we not surprised with the speed with which the Soviets produced the first hydrogen bomb and also at the speed with which they have developed new types of aircraft; and also the speed with which they have gotten those aircraft into production after development?

General LEMAY. Yes.

Mr. HAMILTON. Is it not true that Russia is now producing its Bison-type airplane at a rate higher than our present production of the B–52?

General LEMAY. Yes; if our estimates are correct it is true that they are producing more Bisons at the present time than we are B–52's.

Mr. HAMILTON. Do you consider the B–36 a modern bomber, especially when also considering the developments in Soviet air defenses?

General LEMAY. No. However, we think that it still might be useful for another year or so, if we could employ it under circumstances which we select.

Mr. HAMILTON. There has been much talk about the fact that if we have a certain minimum number of planes and a certain minimum number of bombs, we can do the job of retaliation, regardless of Soviet strength.

But isn't it true, especially as the intercontinental potential of the Russians grows steadily stronger, that the more planes we have, and the more bases available on which to disperse those planes, the greater the chance of absorbing any initial attack, and in turn having enough left to destroy the enemy by means of a counterblow?

General LEMAY. Yes.

Mr. HAMILTON. You say "as a general rule it is easier to obtain money for airplanes and equipment than it is to get public works funds, including housing."

Just before General Hoyt Vandenberg's death, the latter confirmed what you now say about bases and personnel, when he commented in a hearing:

> While we have the airplanes, we will not be able to use them. We have neither the bases, nor the crews, nor the training program to support them (p. 967, Department of Air Force Appropriations for 1954, hearings before subcommittee of House Appropriations Committee).

Does not what you say confirm this prophecy of the late General Vandenberg?

General LEMAY. It is obvious that General Vandenberg and I agree that it is easier to obtain money for aircraft and equipment than it is for bases and other purposes.

Mr. HAMILTON. What do you believe is the reason for the current critical shortage of tankers?

General LEMAY. I have previously testified in my response to another question today that if we were forced into a war with the Soviet Union at the present time I believe we would win it; it therefore follows that there is not currently a critical shortage of tankers. It is true, however, that we could get more bombs on the target in a shorter period of time if we had more tankers.

Mr. HAMILTON. You say we can increase our—

intercontinental striking capability considerably from our planned base struture and with the same size bomber force if we had more tankers than we are now programed to have.

Based on that quotation, what do you mean when you say—

the ratio of tankers to bombers that we now have programed is the best compromise we could come up with at the time the program was laid down.

What does the word "compromise" mean?

General LEMAY. I use the word "compromise" to mean less than the ideal solution. Within practical production limits, we have had at any stage of our programing the choice of buying more tankers at the expense of bombers within the funds available. We selected the ratio reflected in the present plans as being the best balance between bombers and tankers within the procurement funds available at the time these programs were established.

Mr. HAMILTON. On October 11, last, General Twining, Chief of Staff of the Air Force, stated (the Union League Club, New York City):

If being ahead is related to numbers of aircraft in combat units, we are not ahead. The Communists have thousands more combat airplanes than we do.

If being ahead is related to aircraft production, we are again only second best. The Communists are producing far more combat airplanes than we are.

Even more important, if being ahead is related to rate of progres, we have fallen far behind.

Eleven years ago we had the world's largest aircraft industry turning out the world's finest airplanes by the tens of thousands. At that time, what was left of the Soviet aircraft industry was rudimentary compared to ours. Yet in 11 years, Soviet science and industry have provided the Soviet Union with the world's largest air force, equipped with modern, high performance airplanes.

Based on what you know of the general situation, do you agree with those statements?

General LEMAY. Yes, I do.

Mr. HAMILTON. On February 9, last, General Thomas D. White, vice chief of staff, USAF, stated (General Electric Dinner, Queen City Club, Cincinnati, Ohio):

In airplane after airplane, they (Soviet Communists) are approaching us in quality and surpassing us in quantity.

Based on your knowledge of the general situation, do you agree with that statement?

General LEMAY. Yes; I do.

Mr. HAMILTON. On February 21, last, before the Senate Armed Services Committee, General Twining said:

This compares to thousands less in the United States Air Force. Our counter to this quantity of force has been quality—better airplanes, better weapons,

better airmen. It is in quality that we have been able to stay ahead. However, the Soviets are now closing the quality gap. This concerns us more than comparisons of numbers.

Nevertheless, numbers are important. Let us look at a few comparisons which are indicative of relative effort and capability.

Let us first compare our striking forces.

The Soviet Air Force has more Bisons than we have B–52's, right now, and they can maintain this advantage for some time—if they keep on the production curve we are now predicting.

Based on your knowledge of the general situation, do you agree with this statement?

General LEMAY. Yes; I do.

Mr. HAMILTON. On February 9, in published testimony before the House Subcommittee on Department of Defense Appropriations, General Twining said:

We must remember we underestimated the capabilities of the Russian right straight through, particularly with respect to his production. He got the atom bomb way ahead of when we thought he would get it. He built a great many more fighters in a shorter period of time than we thought he could.

Do you agree with those statements?

General LEMAY. Yes, sir; I do.

Mr. HAMILTON. You have testified that the plans for the present number of wings in SAC was established in 1953. What is the difference in that plan and the plan that was established in 1951 insofar as the striking power of SAC is concerned?

General LEMAY. In the 1953 program: Heavy bomber wings are increased by four with an equal reduction in heavy strategic reconnaissance as compared to the 1951 program.

In the 1953 program there were two less medium bomber wings than in the 1951 program.

There is one less medium strategic reconnaissance wing in the 1953 program than there was in the 1951 program.

Whereas the 1951 program contemplated 10 fighter escort wings, the 1953 program contains 1 strategic reconnaissance fighter wing and 6 strategic fighter wings.

I have those listed in tabulation form as follows:

	1951 (143)	1953 (137)
Heavy bomb	7	11
Medium bomb	30	28
Strategic reconnaissance (H)	4	0
Strategic reconnaissance (M)	6	5
Fighter escort	10	
Strategic reconnaissance (fighter)		1
Strategic fighter		6
Total	57	51

Mr. HAMILTON. Is it not a fact that in the period 1958–60, SAC will have fewer effective long-range bombers than the Soviet to carry out this mission?

General LEMAY. Assuming no change in our present plans and programs, and in view of our estimate of Soviet production, the Soviet Air Force will have substantially more Bisons and Bears than we will have B–52's in the period 1958–60.

(Discussion off the record.)

Senator SYMINGTON. Back on the record.

Mr. Counsel, have you anything at this time that you would like to say?

Mr. HAMILTON. Yes. In view of the mixup on the timing with respect to the reporter, as a result of which no transcript was taken of the proceedings of the committee between 1:30 when the meeting was called and the present time, which is approximately 10 minutes of 2, I should like to make a statement for the clarification of the record.

It was the decision of the committee at that time to proceed in the absence of the reporter to take down the transcript, in view of the fact that the questions to be put to General LeMay and the answers that he was to give to those questions had been reduced to writing.

It was the ruling of the Chair, upon the request of counsel, that in view of the absence of the reporter, there would be introduced into the record with the same force and effect as though it were a written exhibit that had been introduced into the record, the document of six pages that contains those questions and answers. The record should show that in General LeMay's testimony and in the questions there was no deviation from the statement contained in the mimeographed exhibit of seven pages to which I have referred.

Upon the suggestion of Senator Saltonstall, counsel undertook to supply for the record references to the various quotations contained in the questions that were put to General LeMay, those quotations being quotations from statements made either by General Twining or by General White.

Senator SYMINGTON. Back on the record, General LeMay, as you know, the month of January was inadvertently left out, apparently in the questioning by the committee.

What were the figures of B–52 production in January; more specifically, how many were produced and how many were accepted?

General LEMAY. Four produced and four accepted.

Senator SYMINGTON. Mr. Counsel, have you anything further?

Mr. HAMILTON. Nothing further.

Senator SYMINGTON. Senator Saltonstall?

Senator SALTONSTALL. I would like to ask just one question, General.

On page 3 of the testimony in answer to question No. 16, you answered the question as follows:

> Most of the B–52's produced but not accepted in February, March, and April have not been accepted because of a component failure for which we now have a solution.

My question is—that component failure was not so fundamental that the planes won't be fairly quickly accepted if they are not already accepted; is that right?

General LEMAY. That is essentially correct.

The failure was serious, but one that is correctable in a relatively short period of time.

Senator SALTONSTALL. Mr. Chairman, with permission of the counsel, and you can strike this out because this is an open hearing if you do not want the question, though I think it is proper, was that component failure evident in the the planes that had already been accepted so that they had to be changed too?

General LEMAY. Not altogether; no.

Senator SALTONSTALL. Thank you, Mr. Chairman.

Senator SYMINGTON. Senator Jackson?

Senator JACKSON. Mr. Chairman, I wanted to refer to question No. 4, the last sentence in the answer by General LeMay. He states:

> I have already discussed the B–52 complement in closed hearings. For security reasons I feel I should not discuss it in public.

I merely want to make a statement that I read in the newspaper that the Secretary of Defense had announced publicly that the B–52 wing had been increased from 30 planes to 45.

I am making the statement in fairness to the public. I am not saying this in criticism of General LeMay.

I understood that that information was all classified, so when the newspaper people called me up I said nothing. Now I see it was all made public yesterday. I just merely wanted the record to show that this part of General LeMay's answer was prepared prior to yesterday. Is that correct, General LeMay?

General LEMAY. That is correct.

Senator SYMINGTON. Senator Jackson, have you any further questions?

Senator JACKSON. Nothing further.

I just merely wanted to say this, Mr. Chairman: That I think it is very helpful to any congressional committee that has the responsibility of carrying out the constitutional prerogatives of raising and supporting armies as the Constitution provides—that is a little archaic right now; it includes the Air Force—to obtain honest, professional advice from the men who have dedicated their lives to this job.

I think General LeMay and the other witnesses that we have had from the services have been completely intellectually honest.

Sentor SYMINGTON. Senator Duff.

Senator DUFF. Mr. Chairman, I think I clearly understand the General's answers, so I have no further questions.

Senator SYMINGTON. We will go into a closed session with General LeMay on some other questions at the end of this open hearing, and if prior to that closed session any members of the press have any questions we would be glad to discuss it with them breifly.

Before this hearing is closed, however, I make this short statement.

Everybody in your command, General LeMay, from the grease monkeys to the top generals, know you are a man of courage and candor.

Your record speaks for itself. In my opinion you have done a great service to your country in your testimony before this subcommittee during the last few days. I am proud to be a citizen of the same country you are. You take the gratitude of many people with you as you return to your command.

Thank you for being with us.

General LEMAY. Thank you, Mr. Chairman.

Senator SYMINGTON. General, we will suspend for 5 minutes and then we will go into a closed session.

(Whereupon, at 2 p. m., the subcommittee recessed, to proceed in closed session.)

STUDY OF AIRPOWER

WEDNESDAY, APRIL 25, 1956

UNITED STATES SENATE,
SUBCOMMITTEE ON THE AIR FORCE,
OF THE COMMITTEE ON ARMED SERVICES,
Washington, D. C.

The subcommittee (consisting of Senators Symington, Jackson, Ervin, Saltonstall, and Duff) met, pursuant to call, at 10:10 a.m., in room 318, Senate Office Building, Senator Stuart Symington (chairman of the subcommittee) presiding.

Present: Senators Symington (presiding), Jackson, Ervin, Saltonstall, and Duff.

Also present: Senator Welker.

Fowler Hamilton, general counsel; Ramsay D. Potts, Jr., associate general counsel; Fred B. Rhodes, assistant to Senator Saltonstall, Edward C. Welsh, assistant to Senator Symington; and Wallace L. Engle, staff member.

Mansfield Sprague, General Counsel, Department of Defense; Brig. Gen. Thomas C. Musgrave, Jr., United States Air Force; Gen. Earl E. Partridge, commander in chief, Continental Air Defense Command, United States Air Force; Col. Lewis E. Lyle, Chief, Plans Division, D/Plans, SAC; Col. Alfred J. Hanlon, Chief, Target Analysis Division, D/Int, SAC; Lt. Col. David C. Jones, aide-de-camp to General LeMay; Lt. Col. O. V. Stephenson, Chief, Budget and Accounting, D/Comptroller, SAC; Maj. Robert P. Lukeman, War Plans Branch, D/Plans, SAC; M. Sgt. Henry B. Hurtt, Directorate of Operations, SAC; and S. Sgt. Neil F. Long, Directorate of Operations, SAC.

Senator SYMINGTON. We will open this hearing. Our witness this morning is General LeMay.

General, inasmuch as you are going to testify before us in open hearing on Friday, we will dispense at this time with some comments it will be my pleasure to say about your record. I ask you to stand and be sworn, please.. Raise your right hand.

Do you solemnly swear that the testimony you are about to give before this subcommittee of the Committee on Armed Services of the Senate of the United States will be the truth, the whole truth, and nothing but the truth, so help you God?

General LEMAY. I do.

Senator SYMINGTON. The other people who will testify here this morning beside yourself——

General LEMAY. This is my testimony, and I am responsible for it. I am just using them to present the charts.

Senator SYMINGTON. Every man who may talk this morning should be sworn at this time. Is there anybody else in the room?

General LEMAY. How about this afternoon?

Senator SYMINGTON. And this afternoon, too.

General Partridge, we appreciate the honor of having you.

Will you other gentlemen identify yourselves, please?

General MCCONNELL. Maj. Gen. John J. McConnell, Director of Plans, SAC.

General TERRILL. Maj. Gen. Robert Terrill, Director of Operations, SAC.

Colonel NICHOLS. Col. Edward M. Nichols, Chief, Control Division, Directorate of Operations, SAC.

Colonel HANLON. Col. Alfred J. Hanlon, Chief, Target Analysis Division, SAC.

Colonel STEPHENSON. Lt. Col. O. V. Stephenson, Chief, Budget and Accounting, Directorate of Comptroller, SAC.

Major LUKEMAN. Maj. Robert P. Lukeman, War Plans Branch, Directorate of Plans, SAC.

Senator SYMINGTON. Each of you do solemnly swear that the testimony you are about to give before this subcommittee of the Committee on Armed Services of the Senate of the United States will be the truth, the whole truth, and nothing but the truth, so help you God?

General MCCONNELL. I do.

General TERRILL. I do.

Colonel NICHOLS. I do.

Colonel HANLON. I do.

Colonel STEPHENSON. I do.

Major LUKEMAN. I do.

Senator SYMINGTON. General, before you start, I would like to give these facts.

General LeMay's briefing generally takes 3 days. He has reduced the time of this briefing. If we sit today without interrupting him from 10 o'clock to 12 o'clock, after 12 o'clock we will have opportunity to question him as long as the committee would like. We would sit tomorrow, or this afternoon from 2:30 to 4. After that we will have full opportunity to question.

And then if we give him——

Senator SALTONSTALL. Excuse me for interrupting. Does that mean the counsel will lead off in the questioning?

Senator SYMINGTON. The counsel will lead off in the questioning.

If it meets with the approval of the committee, we will limit the counsel to 10 minutes, and then take the members of the committee in order, with somebody holding the watch—Mr. Welsh, you could do that—so everybody will be able to question somewhat extensively up to 5 o'clock, and this morning to about quarter of 1. Is that all right?

Senator SALTONSTALL. Yes.

Senator SYMINGTON. Tomorrow morning I did not call a hearing, because we have the full committee with the dependents medical bill. We will meet tomorrow afternoon, with the Senate's approval, on the same basis, from 2:30 to 4. We will have the same program of questioning.

After that, as a result of planning of the counsel with General LeMay, he will have presented his position before this committee in a

closed session. Friday morning at 10 o'clock we will have an open session.

Does that meet with your approval?

Senator SALTONSTALL. Certainly.

General, in the open session you are going to testify as to unclassified matter?

General LEMAY. I have no prepared statement for the open session, because I just found out about that. We can give the personnel part of our briefing, I believe, in open session, and that is planned.

Senator SYMINGTON. The plan will be this: The counsel of the committee, representing all members of the committee, will present to Admiral Davis, who has been charged with this mission by the Secretary of Defense, those questions the counsel and the Chair believe are proper to ask in an open hearing.

Admiral Davis will then decide, or the Department of Defense, what questions should or should not be answered in public.

The Chair will reserve the right, if he thinks the Department of Defense is leaning over too far in refusing to let a question be answered, to state in public hearing the question it had been planned to ask which the Department of Defense had decided to censor.

Mr. HAMILTON. I would like to add to that, if I may, Mr. Chairman and Senator Saltonstall, that those questions will be given to the Department of Defense, together with some material from General LeMay as to proposed answers, in sufficient time so that they will be able to study them and arrive at a mature judgment as to whether or not they think the material should be released.

Senator SALTONSTALL. Mr. Chairman, may I raise just two minor points, that might be minor points.

Senator SYMINGTON. We would be glad to have you do so.

Senator SALTONSTALL. The first is, do I understand that any question that any member of the committee may have, in addition to the counsel's questions, would be submitted for the same criticism or the same study?

Mr. HAMILTON. In other words, if you, for example, wanted to ask a question which had not been covered in a list drawn up?

Senator SALTONSTALL. That is what I had in mind.

Mr. HAMILTON. Certainly as far as I am concerned, I would not object to it.

Senator SYMINGTON. What the Chair is anxious to do is prevent criticism of any witness because of his answering a question, in his desire to conform to the wishes of the Congress, which nevertheless later it was felt he should not have answered in an open hearing.

If there is any difference between the committee, or its counsel, and the Department of Defense with respect to whether a question should or should not be answered, that is a matter which should be the responsibility of the Department of Defense and not of the individual witness.

Senator SALTONSTALL. I think you misunderstood me. All I wanted to have was the same privilege of submitting questions.

Mr. HAMILTON. Oh, certainly.

Senator SALTONSTALL. The only other question that I raise, and I raise it perfectly frankly, in order that we may understand each other, may understand the whole situation, I would like to discuss perhaps before the issue arises—and I have not talked with Senator

Duff as to whether he feels the same way—as to whether the question that the Defense Department objects to should be asked in public, put on the record in public, and then say the Defense Department objects to answering that question in public, because it might leave a wrong inference if that issue arises. I would like to discuss it before it arises.

Senator SYMINGTON. I would be glad to discuss it; but I think it will be difficult to sell me, if counsel feels that a question should be asked and the Chair agrees with him, that the people should not know that that particular question cannot be answered because of the position taken by the Department of Defense.

Senator DUFF. Why don't we meet that when we come to it?

Senator SALTONSTALL. I think we should meet it that way.

Senator SYMINGTON. I would be very glad to. But I did think the Chair's overall position should be known, especially to the minority members; because, as Senator Duff so ably said at the beginning of these hearings, the reason for them is to get as much of the truth out to the people as possible without helping the possible enemy.

It is now 20 minutes after 10; therefore, General, your briefing will go to 20 minutes after 12. We are going to carry out our previous agreement with you as to time.

Therefore, if you will proceed with the briefing at this point, we will run until 20 minutes after 12.

TESTIMONY OF GEN. CURTIS E. LeMAY, COMMANDER IN CHIEF, STRATEGIC AIR COMMAND; ACCOMPANIED BY MAJ. GEN. JOHN P. McCONNELL, DIRECTOR OF PLANS, SAC; MAJ. GEN. ROBERT TERRILL, DIRECTOR OF OPERATIONS, SAC; AND COL. EDWARD M. NICHOLS, CHIEF, CONTROL DIVISION, D/OPERATIONS, SAC

General LEMAY. Mr. Chairman and members of the subcommittee, as a result of discussions and consultations with your counsel, Mr. Fowler Hamilton, with Mr. Rhodes, and with General Musgrave from Air Force Headquarters, it was indicated to me that certain general and specific information with respect to the Strategic Air Command was desired by the subcommittee.

Rather than present this information in response to direct questions by members of the subcommittee, it was suggested by the counsel, and agreed to by the headquarters and by me, that it would save considerable time for the committee if these general and specific items of information were incorporated in a briefing which would be presented by me and my staff to the subcommittee.

The counsel suggested that if additional information were desired by the subcommittee after the briefing had been completed, that information could be furnished in the form of response to questions which might not have been covered in previous briefings.

Accordingly, we have prepared a briefing encompassing those items of information which it was indicated to me the committee would be interested in receiving, and we are now prepared to present this briefing.

In order to cover the subjects of information suggested by the counsel, the briefing has been prepared to consist generally of these items:

First, the status of the Strategic Air Command, to include briefly its background and origin, and introducing a summary of the strategic air effort in World War II.

The information on the status of the Strategic Air Command will also include its mission, its organization, its resources in terms of aircraft, combat crews, base facilities, and communications, together with an examination of its current capabilities covering the range of its aircraft, the mobility of its force, navigation, and bombing accuracies, and ability to penetrate the enemy's defense system.

We will also discuss the factors influencing the survival of the Strategic Air Command against an enemy surprise attack and will conclude the subject of the status of the Strategic Air Command with a résumé of our strike timing and weight of effort which might be applied against an enemy in a retaliatory attack.

I am of the opinion that this briefing on the status of the Strategic Air Command as outlined will provide the information which it was indicated to me by the counsel was desired by the committee on that subject.

Of course, if there are points which have not been covered in the briefing itself, I will be glad to attempt to answer any specific questions which members of the committee may have.

After disposition of the subject of the current status of the Strategic Air Command, we propose to give you a résumé of the procedures by means of which the Strategic Air Command and other unified and specified commands responsible to the Joint Chiefs of Staff coordinate our worldwide atomic efforts.

Your counsel suggested that the committee desired some information in this area for the purpose of evaluating the overall United States atomic capability. After having presented the information relating to the procedures for coordination of worldwide atomic effort by the United States forces, we will present a brief résumé, provided from intelligence sources, of the potential of the Soviet long-range air force.

Your counsel suggested that this particular subject be broken out of the general intelligence estimates which you have already received, and be treated separately as having a direct bearing on the strength and effectiveness which might be required of our own strategic air capability.

Your counsel suggested that, inasmuch as national policy currently expressed by the National Security Council dictates that we must be prepared to retaliate against an enemy surprise attack, the committee would be interested in being apprised of the offensive and defensive postures required within Strategic Air Command to withstand such an attack and to retaliate in the face of it.

In order to bring this information to the committee, we will give you a short explanation of our alert concept.

Your counsel has further suggested that the committee, after having been provided with the information I have indicated will be presented during the course of the discussion on the general subject, would be interested in a brief comparative analysis of the present and anticipated capabilities of the Soviet long-range air force vis-a-vis the Strategic Air Command.

76922—56—pt. 2——5

In order to comply with this suggestion by your counsel, I will provide a résumé of a staff exercise conducted by my headquarters, which generally assesses our capabilities in the period around 1960.

Prior to this, you will already have received, in the discussions pertaining to the current status of the Strategic Air Command, an indication of our present capabilities vis-a-vis the Soviet long-range air force.

I believe that these two discussions will bring forth the information which it was indicated to me by your counsel the committee was desirous of receiving.

Finally, our consultations with your counsel brought forth specifically that the committee was interested in certain deficiencies pertaining to the current and projected combat effectiveness of the Strategic Air Command.

Since our greatest problem, that of maintaining a force in being capable of launching an attack against an enemy on short notice, is directly related to quality and quantity of our manpower, and since the most important single facet of this problem is the provision and maintenance within the force of skilled manpower capability to provide the strike effort, I will outline for you some of our deficiencies in this respect.

Mr. Chairman, if it is agreeable to you and the committee, we are now ready to proceed with the development of the information as set forth in my foregoing remarks.

Senator SYMINGTON. It is agreeable to the committee and the Chair.

And I would like at this time, Senator Ervin, to present to you General LeMay and his staff.

Senator ERVIN. I am very glad to see you.

General LEMAY. Colonel Nichols will start the briefing.

Colonel NICHOLS. Mr. Chairman and members of the committee, this morning I will be talking abut Strategic Air Command as opposed to speaking of the Air Force as a whole, so anything I say pertains only to Strategic Air Command.

I will talk about the present as opposed to talking about the future in this part of the presentation.

This next chart shows the topics I will cover with you.

Very briefly, for the background, a résumé of World War II with regard to the strategic air effort, our mission, how we are organized to accomplish this mission, our resources with regard to aircraft crews, bases, and communications, our capabilities with regard to range, mobility, navigation, bombing, and the all-important penetration question.

Last, I will talk on our ability to survive a Pearl Harbor-type attack on Strategic Air Command.

First, for background, I would like to go back to December 1941, Pearl Harbor Day. At that time in the Air Force, we had only approximately 600 combat-capable aircraft we could fight with. Very few of these were strategic bombers of the B–17, B–24 type.

After war was declared, it took us 8 months to get our first B–17 unit over to England and into combat. We were not prepared.

In that 1942 period, we also flew the first B–29, but we needed an aircraft of these capabilities so badly that the Air Force ordered 1,600 of them before the first one ever flew, which is unheard of in ordering aircraft.

After the first B–29 flew, it took us 2½ years from that point to ever get them in combat. When we first started them into combat, they were in India; they would fly in to China, bomb up, gas up, and go bomb targets in Japan.

Additionally, we were building bases in the Mariana Islands, and started putting B–29's in there.

That meant that we were operating B–29's out of three different theaters, and all of these theater commanders had a different mission, none of which was bombing Japan.

So the Joint Chiefs of Staff put the B–29's in a Joint Chiefs of Staff Air Force. They named General Arnold, then Chief of the Army Air Corps, as their executive agent to pass on their instructions to this command.

Today SAC operates under this identical concept. We have a Joint Chiefs of Staff command. We operate out of all theaters of the world, but we operate directly for the Joint Chiefs of Staff and not for the theater commanders.

That is all I have on background.

We would like now to go into World War II; and here we are going to talk just on the strategic air effort.

This is the strategic bombing of Germany. I might point out, Mr. Chairman, that we have these charts numbered, each chart will come up with a number on it, so that if the committee members who wish to ask a question on any chart will do so, they can refer to it by number.

Senator SYMINGTON. They can then note the number.

Colonel NICHOLS. Yes, sir; and each chart will be numbered as we go through.

The red is the effort by the RAF out of England; and superimposed on top of that is the effort by the United States Air Force out of England.

Sorties out of the number of missions we flew against Germany, we flew 1,442,000 missions. We dropped a total of 2,698,000 tons of bombs on Germany. We lost 22,000 bombers in this effort, and 158,000 crewmen.

Now, the effort by the United States Air Force and the RAF were about equal.

Let's take this same chart and look at it a little differently. Here we are throwing a line right here, in the spring of 1944, 1 year before the war ended. From the beginning of the war up until this point, we had only put down 17 percent of this tonnage. In the last year of the war we put down 83 percent. It took us 3⅓ years to mount this force.

We don't think ever again in history we will have any such time period to build an air force. We are firmly convinced that with the capability the Russians have today, they can destroy our aircraft industry and we will fight the war with the aircraft the day the war starts. They have that capability.

The next chart is the effort against Japan, and here again, remember, we had to build an entirely new force. This force we had to fight Germany with could not be utilized, it did not have sufficient range in the B–17 and B–24; so here is the B–29 force shown here in brown.

Here again, it took us 3⅓ years to build this force. We flew 33,000 sorties against Japan, 160,000 tons of bombs dropped, we lost 485 B–29's, and 3,000 crewmen.

Now I would like to make another comparison and show you the overall results of the two campaigns, and what they accomplished.

Now, these were the results of the strategic bombing surveys after each war, which were made in each country after the war by a group appointed by the President.

In 49 months against Germany, we have been through these figures, and 14 months against Japan, we did this, but in the overall results both countries suffered economic collapse.

Cities, 61 versus 63 destroyed or heavily damaged; key industries; both countries, all destroyed or heavily damaged; housing, 20 to 30 percent; people killed, 300,000 to 330,000; wounded, these figures; homeless, 7 million against 9 million.

Destroyed enemy, armies isolated on battlefields; enemy force is destroyed.

There are many reasons the results are very similar, and yet there is this comparison of the scope of the two efforts. One important one is, we knew how to use a strategic bombing force at the time this campaign started, because over here we had had 3 years' experience. We made a lot of mistakes; we didn't use our force properly. We paid for those mistakes.

Another thing, over in Japan we had a better weapon; the B–29 would fly higher, faster, and farther, and carry four times the bomb load of a B–17.

We developed some good tactics, fire bombing, and used them very effectively in Japan because the construction lent itself to it.

Of course, many other reasons, but we think those are some of the main reasons for this.

That is all I have on World War II. I would like now to talk about our mission.

Our mission, as defined by the Joint Chiefs of Staff, is to conduct a strategic air offensive, utilizing atomic and other available weapons.

Now, they have broken this mission down into three tasks:

The first task is to prevent the launching of an atomic attack on this country. [Deletion by Department of Defense censor.] We are going after their airpower to prevent them from dropping atomic weapons on this country or our allies.

This is, of course, winning the airpower battle. We have to do that before we can move on with anything else. The nation which wins the airpower battle can go on and win the war. The nation which loses the airpower battle could never win the war, because they are out of business.

General LeMay. Mr. Chairman, I think it is generally conceded by all military personnel in this day and age, you must win the airpower battle, gain air superiority, before you can conduct any other type of military operation.

Colonel Nichols. The retardation portion of our task is to prevent the massing and launching of the Soviet forces. Here we are lending support to the theater commander, to deliver weapons on targets of his choosing, that he does not have the capability to deliver.

In other words, he nominates a target he wants destroyed, and SAC aircraft will destroy it for him.

Last, the task is to systematically destroy the war-sustaining resources. Here we go after their steel plants, their heavy industry, and the goods of war will be destroyed so that they cannot fight.

[Deletion by Department of Defense censor.]

I would like now to talk a little on our peace mission.

Our peace mission is preventing war. We are charged with the responsibility of keeping a force in being at all times which can take, which is strong enough to take, the profit out of any war they might start, and thereby preventing war.

We feel it has worked for the past 10 years and prevented this Nation from getting into large-scale war, and we think it can work in the future.

Today we have a force strong enough to do that. However, as time goes by, we must continue to improve this force with better equipment, modernizing our present equipment, and continue to get more and better people.

Today we should be planning to get the tools that we will need 5 years from now, because of the necessary lead time that it takes to get this equipment.

That is all I have on the mission.

I would like now to go a little into our organization.

We, of course, are a Joint Chiefs of Staff command. Commander in chief SAC; come down this line and we have three numbered air forces.

We have the 15th Air Force, the 8th Air Force, and the 2d Air Force. Now, all three of these air forces are located in the United States. All of our tactical wings are assigned to these three numbered air forces, all of our fighting aircraft.

Come on down the line, and we go overseas. We have three overseas air divisions: We have the 3d Air Division on Guam; the 7th Air Division in England; and the 5th Air Division in north Africa. And, as you gentlemen well know, we have bases in those areas.

These air divisions command these bases and keep these bases operational for us.

They do, however, have an operational capability. Although they are assigned no aircraft permanently, we at all times keep aircraft over there on temporary duty.

Right now, we have a B–36 wing on Guam, a B–47 wing in England, and a B–47 wing in Africa. They will be there approximately 90 days. At that time they will come home, return to their parent air force, and another wing will go over and replace them. We always keep those wings in place.

Coming up to the top line, we show here several of the other JCS commanders: Commander in chief of the Far East, Alaska, supreme allied commander Europe, and commander in chief Northeast, North American Continent.

You notice we have dotted lines up to them, and phonetic names: X-ray in the Far East, Victor in Alaska.

We have headquarters established in each one of these theaters alongside the theater commander.

General LeMay has designated five deputy commanders in chief of SAC. These gentlemen would be charged with the responsibility of commanding these headquarters in the event of war; and in peace-

time we keep a skeleton force in these headquarters, and do not man them. We keep 4 or 5 people in there all the time.

However, all the communications equipment is in, and they are ready to go; and in the event of war we can man them in a matter of hours, or General LeMay could move to any one of these five headquarters.

The reason we have them are twofold: One, we have certain support to the theater commander in retardation missions we might be asked to run for him. We have a representative there to talk to him, a deputy commander of SAC.

Additionally, the theater commanders are charged with certain support of the SAC forces in the way of airfields, gasoline, and things of that nature, and this gentleman will also coordinate this activity with the theater commander.

General LeMay. What this does is put me right alongside of the theater commander, so that he has quick access to action, in case he needs it, for outside air support.

We have exercised this setup very frequently, of course, and this works very well.

The theater commander will get his atomic support very quickly. I rotate these people at frequent intervals so that they are well up on our latest plans, and are able to answer questions that the theater commander may have.

Of course, we have a very good communications system in, back to my headquarters, direct contact, and we work very closely together.

It is a two-way street, of course. The theater commander is required by the Joint Chiefs of Staff to furnish me certain support in his areas, and I have direct access to him to make sure that that is done.

Colonel Nichols. The next chart shows a breakdown of our three numbered air forces, where they are located.

We have the 2d Air Force which is generally in the southeast portion of the United States. It has headquarters at Barksdale Field; and these aircraft depict the type and number of aircraft at each base.

Down here you can see very lightly we have some dots. We have five bases down here, actually, where we have aircraft on bases that do not belong to SAC, they belong mainly to the Air Materiel Command. We keep them there as tenant units, in that we do not have sufficient bases of our own today to put these aircraft on.

We have the 8th Air Force, generally in the northeast United States. Its headquarters are at Westover, Mass., and they command these bases.

You will notice we have several bases here which do not have aircraft on them. They are either new bases which are not advanced to the point we can put aircraft on them yet, I mean not built to the point, or they are weapons storage sites and very small installations, and will never have aircraft on them.

We have the 15th Air Force generally in the western portion of the United States. Its headquarters are at March Field.

It also has a tenant unit, in that we have a fighter wing at Larson on a base which belongs to Tactical Air Command, for the same reason, we don't have a base of our own to put it on.

That is the general posture of our three numbered Air Forces.

Next I want to talk a little on our combat-capable units.

Now, these are the units that are ready to fight today. In other words, as I have already said, we have to have a force in being constantly. It has to be ready to go at any time, so in case of war this afternoon, these units are ready to fight.

This shows the location of them. These are the wings that are overseas. We have 1 in England, 1 in north Africa, B–36 wing. Its home station is at Puerto Rico. We show it here. And a B–36 wing at Guam.

In General Terrill's briefing he will go into a little more detail on the dispersal of the force.

This shows their base location, and this is a summary.

Now, in total we have 10 B–36 wings. We call them heavy bomb wings. Each one of these wings has 30 B–36's in it, so that is a force of about 300 B–36's.

The bulk of our force is medium-bomber wings. [Deletion by Department of Defense censor.] Now, all of these are B–47's, which I will go over with you in a minute. We are completely out of the B–50, B–29 bomber business today. All of our bombing force are jets except for the B–36's.

We have a few strategic reconnaissance wings, medium. [Deletion by Department of Defense censor.] These are our B–47's, 45 of them in each wing. There are 45 B–47's in each wing.

We have six strategic fighter wings. These are equipped with F–86F's, and there are 75 in each wing.

And we have 36 air-refueling squadrons. [Deletion by Department of Defense censor.]

The next plan—the next chart shows where we are going. The Air Force is currently on the 137-wing program. Strategic Air Command will have 51 of these wings.

Eleven of them will be heavy bomb wings. The ones shown in black are the ones that are combat-capable, you remember from the previous chart. We have 11 heavy bomb wings. However, one of them is in training, and that is our first B–52 wing. It is in training today.

[Deletion by Department of Defense censor.] This chart shows the composition of the Strategic Air Command: heavy bombers, medium bombers, reconnassiance, fighters, and tankers. You can see from the chart that the bulk of the force we have today consists of B–47 wings, most of which are combat-ready, but a few of them are in training or being reequipped.

I would like to show a little on this conversion of the medium force to B–47's.

We had 28 wings programed. The chore was such that we had to program this so that we did not regress in our fighting capability during this conversion. So we had to start out and convert new wings, get them into the war plan before we could ever take any of our older wings out of the war plan.

So the first six wings we put in were brand new wings. Only after they reached a capability to fight did we start pulling out any of our older B–29 or B–50 wings that could drop atomic weapons.

It has been a gradual buildup. The solid blue line denotes capability.

The green line are former B–29's and the former B–50; the blanks are the new wings that have been built with our program of increasing the size of the force.

That takes us about 9 months to convert a wing to B–47's. If they had been 50's, then it takes about 3 months of schooling; we have to send everybody away to school, the mechanics, air crews, everybody.

When they return home, they start getting their new airplanes; it takes an additional 6 months before they are trained to the point that we can put them into the war plan.

So we have stayed fairly well on schedule on this, and today we are in this time period right here; and we have been bringing in a B–47 wing about every 6 weeks into the war plan.

Now I would like to go over the whole SAC force here.

This shows a gradual buildup of the SAC force. We go back to before Korea:

1950, we had 850 aircraft in SAC. Actually, the day before Korea, we had 848 aircraft in SAC.

Then we started the buildup. The next year, 950; next year 1,225. [Deletion by Department of Defense censor.]

Senator SYMINGTON. General, these people are going to check the room for security purposes. Who asked them to come?

General LEMAY. I asked them.

Senator SYMINGTON. Are they cleared?

General MCCONNELL. They are cleared for top secret.

Senator SYMINGTON. Do you want to start them? They can wait here until you are ready for them. They are cleared for this information; is that correct?

General LEMAY. Yes, they are cleared for all information. It should be done before we start on General Terrill's part of the briefing. They can go ahead.

Senator SYMINGTON. They can go ahead and do their work.

General LEMAY. But it has to be done before General Terrill starts his talk.

Senator JACKSON. You did not explain the tankers.

Colonel NICHOLS. I will give you a breakdown for that later on.

Senator SYMINGTON. We made a rule to let the briefers go through, with the charts all numbered, so later each Senator could ask questions against a particular chart, and we figured it would take 2 hours. We started at 20 after 10. That will take us until 20 after 12. Then we will have 10 minutes each.

Senator JACKSON. I will make notes.

Senator SYMINGTON. Is that all right?

Senator JACKSON. Surely.

Senator SYMINGTON. Colonel, will you proceed?

Colonel NICHOLS. The next 3 charts have to do with our 3 bombing aircraft, and I will talk very briefly about them.

This is our 10-engined B–36. It carries a crew of 16, and this depicts the range.

[Deletion by Department of Defense censor.] You will notice from the chart that we continue to lose range. That is due to the aircraft having six reciprocating engines on it, which are not as efficient in altitude, fuelwise, as a jet.

This aircraft was never designed to fly at 50,000 feet. It has continually been improved since the aircraft came in the inventory. It has been with us now about 8 years.

In order to fly at 50,000 feet, we had to modernize the aircraft. We took a lot of equipment out of it, we took some of the armament off of it, but we can operate it today at 50,000 feet, and we think it can still live safely for several years under these conditions.

General LEMAY. This is an example, I think, of what happens to one of our airplanes during its lifetime. This airplane was actually laid down in 1941 during the days when it looked as though England was going under and we might have to bomb them from this country. It was designed for a long-range airplane, comparatively low altitude.

When we got our hands on it, it would fly 10,000 miles, but at a low altitude, 20,000–25,000 feet. That was good enough to start with; but as the Russian air defense modernized, got jets into the inventory, we required more performance.

We have got more performance out of it; we have doubled the altitude of the airplane in its lifetime. That is remarkable. We have gotten more speed out of it when we put the jet pods on it to get more power, and it is now going out of the picture and must be replaced as rapidly as possible.

Colonel NICHOLS. Next we have the B–47, which is our standard medium bomber. It is a six-jet bomber. It, of course, has radar in it for navigation and bombing purposes.

It is armed with cannons out of the tail. It normally carries a crew of three.

This is a medium-range airplane, capable of carrying out a variety of missions from forward bases, and capable of carrying out an intercontinental mission by refueling with tankers. [Deletion by Department of Defense censor.]

The limitation in the range of this aircraft is crew fatigue, because it can be refueled and we can refuel it any number of times. [Deletion by Department of Defense censor.]

The B–52 is an 8-jet bomber, 2 engines on each side, and of course it has radar for navigation and bombing. It is armed with a tail turret, aimed by radar. It carries a crew of six.

[Deletion by Department of Defense censor.] At optimum altitude with one pretarget refueling by a jet tanker this aircraft has significant range—I would like to point out now, we don't have any jet tankers in the inventory today. We get our first jet tanker in April of next year, which will work with this aircraft.

We can use our standard tanker on it today, our KC–97, but it does not haul enough gas or does not fly high enough to work real well with it. [Deletion by Department of Defense censor.]

A B–47 on takeoff will weigh about 200,000 pounds; and this aircraft, B–52, will weigh over 400,000 pounds.

The B–52 is a much improved aircraft over the B–47. It was, of course, designed later than the B–47.

So much for aircraft.

Now I would like to talk a little on crews.

[Deletion by Department of Defense censor.] If you will recall, today in the command we are manned on a one-for-one basis. We average about one crew per aircraft.

We are authorized more crews than that today, but do not have them. We will show later on in the presentation that it will be necessary, because of the alert plans we will have to go into as time goes by, to get the crews we are authorized, which varies according to the type aircraft. I think that will be covered adequately later on. [Deletion by Department of Defense censor.]

When I speak of crews here, if it is a B–36, I am talking about 16 people; if it is a fighter crew, I am talking about 1. [Deletion by Department of Defense censor.]

I would like to talk a little on our bombardment crews. [Deletion by Department of Defense censor.]

We have a program in SAC called a lead and select crew program. This is done on the experience it is impossible to take any 45 crews in any one wing and have them all come up to the same high peak of proficiency; some of them will get up and do the job a little bit better. Just like in the football and baseball team we have some all-Americans, so we have crew members to do the same thing.

We do not know who those people are. We want to give all our people an incentive to be that good. So we have a program where the wing commander nominates what he considers the best crew in his wing for this high category.

We then send these crews through a very thorough evaluation. We have some evaluation squadrons with trained evaluators. We actually fly with them on the missions, check them, and give them tests on the ground.

If the crews pass this, we then put them on a very rigid training program, both quantity- and quality-wise, check them very closely.

We know when they sneeze; we are checking that close. When one of them catches a cold, it shows up, because he didn't fly with his crew.

(Deletion by Department of Defense censor.) We have aiming points assigned to these crews, and they actually study these so many hours each month; they are actually required to study these aiming points, and are required to know them as well as their home town. In some cases they sit down and draw them, when required to.

Additionally, we are allowed to give these men spot promotions, some of them who meet certain criteria, the officers up to lieutenant colonel and the airmen up to master sergeant.

Now, not all of them, but some of the ones who are up in the higher category.

However, if for any reason they start to slip or their wing loses their war-plan cabilities, if they were in B–50's and they are converting 47's, we take them out of the war plan, those men are reduced back to their regular rank, because they have been taken out of this select category. They have a chance to come back after they get combat-ready in their new aircraft.

(Deletion by Department of Defense censor.)

We don't mean to say these crews we have got down here are no good. They are very fine crews, the ones that are combat-capable.

I might add that 5 years ago, the work that these gents had to do to stay, to be lead and select crews, in the way of bombing proficiency and navigation proficiency, our combat-capable crews are meeting that same criteria today, which shows that we have continually improved our crew capability.

We have certain training and evaluation facilities. I would like, first, to talk about what we call RBS sites. These are depicted by the red bombs, as shown here by the targets in the towns across the United States.

Actually, what these are, are radar sites which formerly were used to aim antiaircraft guns. Today we have them working for us. We have them located in these cities, and within these cities we have picked out several targets.

Now, we do not tell one of our crews to go bomb Chicago. We will tell them to go and hit the center of the roundhouse in Chicago or the northeast corner of a particular building.

So that we actually have them doing pinpoint targets. The way this works, when our crews come in to make this bomb run, they, of course, cannot drop a weapon on these cities, but they come in and they contact this RBS site by radio, they call them up on the radio, and tell them, "I want to bomb Target Able," and the ground crew knows what that target is; it is somewhere in the city.

Then when the crew comes up to this release point where he would ordinarily release his bomb he sends a radio tone signal down to the people on the ground. And they can then score where that bomb would have hit within 200 feet, which means that we are allowed now, or have a system now, of training our crews to go out and identify the type targets we would be bombing in the event of war.

There is all the difference in the world between going into these industrial complexes and picking out pinpoint targets than there is in going out in a desert and bombing circles in the sand, as we have done for years. Anybody can do that, because you can't help but see it. It stands out like a sore thumb.

We believe this is a most valuable training device we have today, and does more to increase our capability than any one thing we have in the way of training devices. We believe it is realistic.

We have these evaluation squadrons that evaluate our lead and select crews; we have four of them. We have 1 at Davis Monthan, in Arizona; 1 at McDill, in Florida, that evaluate our B–47 crews. Each one of these lead and select crews have to go back each year and be evaluated. The fact they passed one time is not good enough. Each year we look at them again to see they are still up on top.

We do our reconnaissance people at Little Rock, in Arkansas, and our B–36 people at Carswell, at Fort Worth. We will start a new one out at California for our B–52 crews as soon as we get enough crews to warrant this.

We also have a survival school at Stead, and here we send our crews to learn to survive, regardless of where they go down in the world. We are interested in them being able to live off the land, evade, if they are down in enemy country, and generally learn how to take care of themselves.

We think it is a pretty good school, and they come out a lot better men.

General LeMay. We want these crews to be thoroughly convinced that we are leaving no stone unturned in any phase of their training, to give them the best possible capability of carrying out their mission and returning alive; and that includes being shot down or going

down due to mechanical difficulty, in any part of the world, being able to survive without help until we can get them out.

In addition to this survival training course, we have a lot of by-products. You have all heard the old expression, "If you really want to know a man, go camping with him," and that is true. And in some extreme cases we have had a crew go into the woods on their march 60 miles over the mountains they use for a graduation exercise, and one of the sergeants would be commanding the crew when it came out, and we wanted to know that. That is not the kind of an airplane commander we want. It is an extreme case, but we find out things like that.

The normal happening would be some member of the crew would not prove out to be the type of man that we want on the crew, and the airplane commander would want him replaced, so that these crews have complete confidence in each other and work as a team, regardless of what the situation is.

Colonel NICHOLS. This next chart shows how our operational flying time has gone up over the past few years, and we go back to the year 1950, we flew about 400,000 hours. These are these figures up this side.

It increased each year. Last year we flew about 1,200,000 hours.

This was due to the increase in the force, as it has built up in the past 5 years.

Shown on this red line is the accident rate. The reason it jumps up and down is we plot it each month, and in the Air Force we figure the accidents on how many accidents do you have per 100,000 hours. It is a percentile figure.

When I speak of an accident here, it can be a major or minor accident. If you scrape a wingtip and have to change it, why, that is an accident the same as if you go out here and spin and kill yourself. They are all accidents, and they all injure crews, which injures our combat potential.

To go back to 1950, we averaged 43 accidents for 100,000 flying hours. So we started a very strenuous accident-prevention program, and we think it has paid off fairly well. You can see each year we have been able to come down.

This past year we had our accident rate down to eleven. While we are proud of it, we certainly are not satisfied, and we hope we can continue to bring this down as the years go by.

We are trying to get everybody interested in flying safety, the maintenance men and flight crews and the supervisory people, and we think we have a good program going on along these lines, and it has paid dividends.

General LEMAY. I doubt very much if we are going to be able to improve much beyond what we are now, unless we do something about the technical skill of the people involved.

We analyze very carefully every accident, learn all the lessons we can from it, why it happened and what caused it.

Of course, maintenance and maintenance capability in the unit directly reflects their score in flying safety.

A lot of our accidents are due to inexperience, carelessness brought on by inexperience, and low technical skill generally of the unit.

As the technical skill goes down, automatically you have to bring your flying time down that you are capable of doing, because you

are throwing a load on a few people you have who are really skilled, to give the proper supervision to try to make it as safe as possible to fly the airplanes.

Eleven is about as good as we are going to do; I do not know how we got down that far. It is a reflection of the sense of duty of the few skilled inspectors and mechanical people that we have working on our airplanes.

Colonel NICHOLS. Next I would like to talk about the base.

We ask ourselves the question, "Is the base complex adequate to support the SAC mission?" This next chart shows the base complex in the United States only. It is not our overseas bases.

We go back to 1950, we had 850 aircraft, 18 bases.

Since that time we have increased our aircraft 400 percent (deletion by Department of Defense censor)—faster than we have increased our base complex.

This has caused a very crowded condition. We are parked wingtip to wingtip. It makes for inefficiency, overcrowding our bases.

Acts of God we worry about, tornadoes, hailstorms, fire. We stand to lose too much.

Additionally, of course, it makes a very inviting target to the Soviets to have the SAC force concentrated on so few bases at this time.

Now, overseaswise, we today have adequate overseas bases to support the SAC mission——

Senator SYMINGTON. Colonel, we will just interrupt 1 minute for 1 question that the distinguished Senator from Massachusetts is very anxious to ask, and we will break the rule in this 1 case.

Senator SALTONSTALL. Are those bases just in the United States?

Colonel NICHOLS. Yes, sir. These are just in the United States.

Senator SALTONSTALL. Yes, sir. Thank you.

Colonel NICHOLS. Overseas we do have additional bases. They are not included in this. As you know, we have bases in England, Africa, and the like.

That was all I had on bases.

I would like now to go into our next subject, "Communications."

Is the network adequate to support global operations centrally controlled from Omaha?

This next chart shows our communications, teletype network. The orange lines are the USAF teletype network that we operate on. The blue are Navy, the yellow are Army, and the—excuse me, the black are Navy, and the blue are commercial.

As you notice, we have teletype all out through the Far East, Tokyo, Guam, Okinawa, we start around at Dhahran, come through north Africa, England, and all through the Northeast and up into Alaska.

We continually exercise this large communications net. We have run a series of exercises over the past few years, and we have continued to increase the scope of this exercise.

Now, the last exercise we ran, we actually sat down and fought the war, and sent the messages that we would have to send, and combat reports that we would have to send, in the event of war.

In a period of 5 days, we had about 40,000 messages transmitted over this teletype net, and the average time was about 49 minutes.

Now, that is from all areas. Of course, within the States it is a lot better.

We do feel that today that is adequate to control the force.

Now we, of course, have a telephone network not shown here, and we are continually improving that as well as trying to improve our teletype network.

Now I would like to talk a little on range, and we are faced with this question: Are assigned targets within reach of present aircraft operating from existing network of bases?

Of course, the obvious answer here is, we would like to have an aircraft that would take off from anywhere in this country, fly anywhere in the Northern Hemisphere, and return to this country.

The state of the art of the aircraft industry today is, they have not been able to produce such an aircraft. However, we are able to use two things to increase the range of our force:

One is our forward bases. We could land them there.

The other is our refueling technique.

So I would like first to talk about our refueling technique. We have done a great deal of this, and you will notice this is our tanker, here is our tube that goes down from the tanker to the bomber. This is metal. It is about 6 inches in diameter, and through this we can transfer, with pumps, about 600 gallons a minute.

This shows the amount of refueling that we have done. If we go back to 1950, during the year 1950 we only made 747 actual refuelings where we got a tanker and bomber together and transferred fuel, and for that we transferred 358,000 gallons of gas.

Last year we had 34,811 hookups, and we transferred in the air between tankers and our bombers, 145 million gallons of gas.

Now we are doing one of these refuelings about every 5 minutes today, and they are nearly as common as landings and takeoffs to our pilots.

We found our pilots, if they can fly in formation, they can do this refueling. We can do it day or night. We can do it in good or bad weather.

However, we would not try to do it in bad weather; we would simply move the refueling area over to an area where the weather is better. We cannot do it in clouds.

We talked a little earlier about the jet tanker. This chart demonstrates why we are really interested in getting these jet tankers.

This red line depicts a profile of a mission being flown with one of our standard KC–97's and our jet B–47. The B–47 takes off; he flies out here to his refueling; he has to come down to this area [deletion by Department of Defense censor], because that is about as high as our KC–97 tanker can get up to. It has reciprocating engines, and with a heavy load it does not do well at altitude.

The B–47 then has to come down, meet its tanker, and then climb back up on his own fuel. He comes out and he lands here.

Now, with a KC–135 jet tanker, the B–47 would follow the back profile. Here he would come down to the altitude, he would meet his tanker, it would be the altitude he would want to level off at after he takes on all this additional fuel, which reduces his altitude due to increasing his weight.

The aircraft then flies out and lands here.

As you can see from the chart and my previous discussion of the characteristics of piston and jet airplanes, the jet tanker makes a

much more useful airplane out of the B–47 by giving it a significant increase in range. [Deletion by Department of Defense censor.]

So we are most interested in the jet tanker. It has many other advantages. It flies the same speed as the B–47, it can go out with the B–47; whereas the present KC is a lot slower, and we have to send him out 2 or 3 hours ahead to meet the B–47.

Also, it operates a lot higher, and gets above most of the weather.

Those are some of the advantages.

I would like to talk on mobility. Our combat units capable of rapid movement to forward areas:

There are four basic things that make up mobility as we see it. The four basic things of mobility are:

1. We must have combat-ready conditions.

Our units must be ready to move at all times.

We can never get ourselves in a position that we cannot move. We have to keep our people with their shots up to date and their wills and allotments made out and everything so that we do not have to stop and get ready to go.

We have got to just be ready to move out.

Second, we must have certain unit essential equipment.

This equipment must be equipment that we can move out with or must be equipment we have at the forward base.

Now let's take a thing like a set of jacks to jack an airplane. We need them. If we do not have it at the forward base, and we certainly cannot afford two complete sets of equipment all the way around the world, the unit must be prepared to move in with them.

Next, we have what we call a flyaway kit. In this kit we have enough spare parts to last for 30 days. Each unit has one of these, and they carry the kit right in the airplane with them. It fits in the bomb bay. They do not use these parts in peacetime. It is a war reserve kit and we keep it only to fight a war. We would not move with it in peacetime.

Last, we have to have a plan. This plan is a detailed plan that each wing draws up so that on the first aircraft moving out with any wing, we have the proper people and the proper equipment.

We do not want to take a bunch of cooks and bakers over on the first airplane. On the first airplane we want radar mechanics and instrument specialists so that we can get our aircraft in commission and ready to fight.

We bring the cooks and the bakers next week, so that plan is very detailed. Here is a typical example of a deployment. We took two B–47 wings from MacDill in Florida, we refueled them over Bermuda, we refueled them again off the coast of Africa and they went up and struck targets in Europe and came back and landed in Africa.

First we scheduled 30 aircraft, 29 were effective over the target, next wave 31; 31 were effective, and the last wave 20, and 20 were effective.

This was of course a very fine mission and two of our better units were participating in this.

(Deletion by Department of Defense censor.)

We of course must continually exercise a command, and this chart shows our current operations. This is for January and February of this year.

This is the date and the number of the unit, where they went, the number and the type of aircraft and the number of people.

These are movements outside of the United States or back to the United States.

These are all outside the continental limits though. During this period we had 1,353 aircraft and 25,000 people on these maneuvers.

We have two primary purposes: One is keeping the units mobile so that they are ready to jump up and go any time, and the other is the exercising of our forward bases.

We have bases that do not have aircraft on them all the time. Unless we continually put aircraft in there, they will lose their capability to maintain our aircraft when they do arrive.

General LeMay. We would like from time to time to exercise the whole command in the same manner in which we would operate in case war actually broke out. However, that is not feasible.

If we conduct a large-scale exercise of all of the strategic air command, I am sure there would be repercussions in every capital in Europe and probably Moscow too.

In addition to that, if we conducted a big exercise like that and flew all our airplanes at once they would be on the ground for a period of time until they were ready to go.

In other words they would be off balance in case of an attack so we do not want that. Therefore we have to do this exercise in piecemeal. We must get the crews to the forward bases where they are going to operate from either going or coming from the target.

We must exercise those crews on the ground to make sure they are carrying out their duties properly, and at the same time we must maintain a capability of reacting at once in case we get an attack.

So it is a piecemeal operation. If we have a chance to move forward and desire to do so during a period of tension or something of that sort, we have the capability of doing it rapidly.

Of course if you move forward, your units are more vulnerable. You have to make that decision when the time comes. In any case you may have to move from base to base in the United States, due to damaged bases, getting out of the way of attack, things of that sort.

You must be able to do that and operate when you get there, so our supply situation is very, very critical.

We are cutting down our stockpiles to bare minimums because those parts are very expensive, and it is quite a job to make sure that you have the exact part you need at the exact time and do not run short.

That is the reason for the flyaway kit. We have them. We guard them very jealously. You cannot use a part out of them without the specific approval of my headquarters, and if we reach a point where in our day to day training that we cannot operate unless we dip into those flyaway kits, we stop flying, because if there is a war, we might run completely out of supplies, be handicapped, and not be able to fight.

There have been several occasions where we have stopped flying due to a lack of supplies. That has been for a short duration and we have got back and going again, but we must not get into the position where we cannot carry out our mission.

Colonel Nichols. The next subject we want to get into is navigation. Are our SAC crews with present equipment able to navigate to assigned targets?

Our answer is "Yes," we can navigate anywhere in the world. We do it every day. A lot of people say when you get over Russia you

are going to get lost. We do not believe it. We have four basic methods of navigation. We can use any or all or combinations of them in our navigating.

We do know what our errors are. We score all our crews on every navigation mission they go on.

Now on our dead-reckoning navigation we know that our error is about 15 nautical miles per 1,600 miles. Dead reckoning—all we have to do is have our instruments in the aircraft and be able to make drift observations off the ground.

We can do that of course either by radar or visually.

Radar navigation, we can do; pilotage, we can do. Pilotage is just looking out of the window to see where you are. And celestial, looking at our heavenly bodies, 15.6 nautical miles. It makes no difference how long the leg is, that is our average, so we are sure of this capability and we see no problem in navigating anywhere we wish to go.

Now we have what we call a K system in our aircraft. This is our navigation and bombing system in our B–47's, B–52's, and B–36's.

[Deletion by Department of Defense censor.]

Wind, direction, and velocity are automatically computed.

We have a wind button you push and it will come out and tell you the wind, direction of velocity you are presently flying in.

Target section: We can preposition the cross hairs on the bombing computer [deletion by Department of Defense censor] and it will go on in and bomb on this automatic computer regardless of what happens to it in the meantime.

Station keeping: It allows us to fly formation at night or in bad weather. We can actually look at other aircraft, look at our scope, see the other aircraft in formation and fly along with them.

Evasive action: It allows us on the bomb run to take evasive action. We can change direction headings and speed, and it will recompute and drop the bomb. In the last war we could not do that. We had to get on the straight-and-level bomb run, and it certainly assisted the people shooting at us.

All-weather: We can do it optically or by radar. Photo record, we have a camera that takes a picture of the radarscope. When we get back on the ground, develop that picture, and we can see exactly where our crews have been, what they have done.

Actually, if they drop an atomic bomb, we can see the bombing off on the film and can see where the bomb hit, so it cuts down our reconnaissance requirements somewhat in that we can actually see where a lot of the bombs went off. If we know where they went off, we can compute what damage was done, or indirect bomb-damage assessment.

All in all, we think it is a fine piece of equipment.

Now I would like to talk about bombing.

Can targets be bombed with acceptable accuracy?

Any time we start talking about bombing, a lot of people get a misconception of what bombing is and what you are trying to do.

[Deletion by Department of Defense censor.] In this particular area over 70 percent of the time you have cloud coverage, over 60, over 50, and up to 50.

The reason we show this, I think it demonstrates one thing, that you cannot depend on a visual bombing capability to allow you to do this job.

We have to be able to do it by radar. By doing it by radar, we can additionally do it at night as well as bad weather, which gives us a 24-hour-day capability in our bombing.

As a result we practice radar bombing about 80 percent of our practice, about 20 percent of it is visual.

Visual is easier, but we must have this radar capability.

Now the next chart I am going to show you is a general rundown of our bombing scores. Of course anyone talking about the bombing problem, he must understand many things about it.

Probably one of the easiest things in the world to mislead people on, is what your bombing capability it.

The figures that I am going to show you are an across-the-board figure. It is by all types of crews, all types of airplanes and all different types of targets.

There are many different classes of targets in radar bombing, some very easy and some very hard. The only two things constant about this is (1) they are all above 25,000 feet and (2) they are all what we call record runs.

The first time each one of our crews go out each day and makes a bombing run, we call that a record run. We do not let them go out and warm up and make a few practice runs and then say they are ready to go for record. We know that if they go to war they are not going to practice over Moscow.

We know that they are going and they are going to drop, we want them to drop the first time, so we must do our training accordingly, so this is the way we are running today, the figures that show how we are running today.

We go back to 1949, radar bombing, we were bombing about 3,500 feet. Since that time we have brought our average down. [Deletion by Department of Defense censor.]

General LeMay. These bombing scores are very deceptive unless you really understand what you are looking at.

For instance, if you ask me what our bombing accuracy is then I have to ask you a lot of questions to see what you are talking about.

One is what type of bombing have we been doing? Is it visual or radar?

What type of crew is doing the bombing?

Is it one that just started the business or is it one of our select crews that have been in business for a long time?

What type of a target is he bombing? Is he bombing New York City, where there is a lot of land-water contrast around, a very easy target to identify and hit, or is he bombing Denver, Colo., or Birmingham, Ala., or a target that is inland, no good check points, and a very difficult target to identify?

How much target material does he have to prepare for his mission? Is the folder completely full of everything that he would like to have to do a good professional job or is the material very sketchy, making his problem more difficult?

It is a highly skilled business and it is really an art, so that you must know what the conditions were before you could properly analyze the results.

What we are showing here is a composite of everything. The only thing standard there is that it was all done against an industrial-type

target of some sort, and not a buoy out in the water or a circle out in the desert.

It is done all at combat altitudes and it was all measured and accurately plotted.

Now, you will notice that our radar bombing has come down, improved, and it is now leveling out. It will probably stay there now, because we think we have wrung out of our standard operative procedures everything that we can do to eliminate human error and get the most out of the equipment.

Any increases in efficiency from now on will have to be in better equipment. You will notice in the visual bombing that we have had a regression, and that started when we started putting the B–47's into the inventory. It is due to the limitation of the human eye. You can only see so far, especially against industrial targets and industrial haze.

As you get higher it is more difficult to see and identify the target visually. And when you get in a faster airplane, once you do see it, you have less time to solve the bombing problem and hit the target.

So as speeds and altitudes go up in future bombing equipment we will have to depend more and more on radar bombing method, and I expect to see the visual method go out of the picture entirely.

But as it is now with the present equipment, we will go over; if we can see the target, we can get a few feet more accuracy if we use the visual method than if we use the radar.

In all probability it will be a combination of both; we want to know how the crews are doing, so we plot them separately as of now.

But, in any case, with the weapons we are using, it is very adequate.

Colonel NICHOLS. The next question we come up to is the all-important penetration question: Can our combat forces penetrate present enemy defenses?

On all the previous subjects we have been able to show you what we can do, and we know that that is our capability because we have evaluated ourselves very closely, many thousands of times, and we know what we can do.

This one, of course, the one net that we are talking about, we have not tried. We can go back here and strike some comparisons which we will review. There are two things on any penetration problem. We always have the offense, the gent that is trying to get through, and then we have the defense that is trying to stop him, and in any given situation we strike a balance, and that is your attrition rate.

Now we do not like to depend here on hindsight but we would like to go back and first review World War II. This shows our attrition rate. This is against Germany.

Now on the defensive side we had antiaircraft guns. The Germans had a great deal of them, 90 millimeter.

They were tried under fire crews and very effective. They had day fighters, ME 109 and the Focke-Wolfe 190 that had adequate performance against the B–17 and the B–24. They had barrage rockets which they could fire at our large formations, and they had ground radar which warned them we were coming and kept control of the force and kept the force plotted where they knew where we were going.

Now on the offensive side we had initiative, and that is true of any problem you set up, the gent on the offense always has initiative in

that he can call the place and the conditions under which he wishes to do this penetration job.

We had mass saturation. We were able to put up large massive formations, and we were able to saturate any one area by putting so many aircraft in there he could not possibly fight all of them, that is at the latter part of the war.

All of our bombers had guns to assist in protecting them. We had escort fighters on the majority of missions. We had a crude radar bombing at the last of the war that assisted us in being able to go over and drop through the overcast, and that was effective from our point in that the fighters did not operate too well, because they had no ground radar to send them up through the overcast. And we had chaff which is a tinfoil that we drop out of the airplane to try to confuse radar and give them the wrong picture of the number of aircraft up there and where they are heading. The overall balance struck in this battle was 2 percent.

In other words, with his defensive system, they shot down, actually a little less than 2 percent of all the aircraft that flew over Germany were shot down during World War II that were over on bombing missions.

The latest thing that we can look at is the Korea practice where we had B–29's operating. On the defensive side in Korea they had good antiaircraft guns. It was radar aimed and they were pretty well trained, and we gave them a lot of training. They had day fighters. They had the MIG that had more than adequate flight characteristics to operate against the B–29. The B–29 at this point was obsolete, and the MIG was, of course, a modern jet fighter.

They had ground radar that covered every foot of North Korea and they knew exactly where we were all the time and they had no trouble at all keeping track of us.

Of course they had political restrictions in that we were not able to go in and bomb these MIG fields.

We could see them on the missions and fly along and watch them take off and come up and shoot you, but you could not go over there and bomb them, so they were able to keep their defense force in being.

Now on the offensive in Korea we had initiative which was very restricted because of the small country and the limited number of targets.

After the first 6 weeks we were after very token targets, in that all the big targets had been destroyed.

We developed in Korea a night and all-weather attack through a type bombing known as Shoran. It is actual using radio beam on the aircraft that directs it to its target.

We got very good accuracy with this and we started operating at night. The B–29 did not have enough radar system in it to actually drop bombs on the targets at night but with this new system Shoran we were able to do this.

We had guns to protect the B–29's, and we had a moderate amount of fighter support. However, the overall balance in Korea struck at 1 percent.

Actually they shot down less than 1 percent of all the B–29's that flew over North Korea. The reason that I think we can all agree on why we were able to gain on the defensive system is that we developed a night attack capability here.

The defense system had only day fighters, and the day fighters would not come up and work against the B–29 at night. They could not find us, so that was a balance that was struck in Korea.

Now let's talk a little on attrition today, where we stand. On the defensive side today the Russians have of course very fine antiaircraft. I think that is taken for granted by everybody.

I won't go into that any more but they do have antiaircraft, plenty of radar to direct it. They have day and all-weather fighters and their all-weather fighter force is continuing to improve.

They, of course, have a very elaborate ground radar warning system that can pick up any aircraft coming in their area.

Now, additionally, intelligence sources tell us that they are putting guided missiles into their inventory, which will certainly increase their defensive capability.

However, let's take a look at the offense at this point.

What do we have on the offense today?

Well, we, of course, have initiative. We have saturation still, in that we can compress our force into a small area and still saturate them if we choose to use that.

Exposure time: We have reduced our exposure time by approximately one-half. The B–47 is twice as fast as the B–29 so we are exposed to the defense system about one-half of what we used to be. We have developed an all-weather attack in that all of our force today in our bomber force can bomb by radar, so we have a complete across-the-board all-weather attack.

We can go at night or bad weather. All of our bombers are armed with guns either electronically or radar aimed, and then we have high yield weapons on our side today which allows us to send one aircraft to do a job that we used to send a hundred to do, so we don't have to have as large a force, and the smaller the force, the harder it is for the defense system to detect it.

In other words, a defense system would a lot rather try to find 100 airplanes coming in than 1 airplane if they are all coming in together in formation.

Now, additionally, we have electronic countermeasures. Now this electronic countermeasure includes attack warning.

In other words, we have black boxes that will tell us someone is looking at us with a radar set. That is attack warning. We have equipment that will jam. It will deceive the ground radars by jamming them. In other words, it will clutter up their scope to where they can't see.

We can also use chaff to put false targets on radar on the ground. Of course these all cost us, cost us in load-carrying capability, cost us in the size of the aircraft.

The more of this equipment we want to carry, of course, the bigger aircraft we must have to carry it, and it of course costs us in dollars, so we have to look at that very closely, and make a decision here as to how much of this we will have to do to assist us in our penetrating.

(Deletion by Department of Defense censor.)

If you have eight aircraft they can assist each other in penetrating.

Timing: Our timing problem is decreased with the faster aircraft in that a head wind does not bother us as much. With a B–47 we can overcome a 40-mile-an-hour headwind by increasing our power.

In the B–29 we could not because we were flying it as fast as it would go all the time anyhow.

Deception: We can deceive easier today, which I have already covered, in that we can take one aircraft and deceive the defense system easier than we can deceive them with a hundred.

We can now take evasive action that we could not take in the old bombing equipment. It flew our bombing off.

Also we can come in at low level today with our jet aircraft, come in fast enough and low enough that the aircraft will survive, whereas with our B–29 it did not stand near as good a chance of surviving on a low-level attack.

All of these cost us in range, they cost us in the size of the force: the bases. The bases and range swap-off. If you do enough of these tactics, you use more gas, so you have to either have a closer base or increase the range of the aircraft. It costs us in tankers, so all of these cost you in dollars. So here again a decision must be made how much tactics can you afford or how much do you need to get the job done.

General LeMay. I might sum this up by saying——

Colonel Nichols. I have one more. The last one we want to talk about here is attack on defenses.

Now that can come in the form of a direct or an indirect attack. On a direct attack, we could actually go in and bomb the defense system. You could go in and bomb their radars, you could go in and bomb their airfields, and actually have the first aircraft coming in destroying the defense. Or you can do it indirectly by dropping large yield weapons close to the defense system and plan on radiation helping you in keeping them underground for a while.

What does this cost us?

This is diversion from targets. Any time you pull an aircraft off to attack a defense system, obviously you have pulled him off a target that is a very high priority or you would not have had him attacking that target on the first wave.

In other words, you have to put that target down to the second wave, so it does cost you in that.

It calls for more detailed plans. It is harder to plan this. Timing must be closer because you have got very good timing area.

In other words you want to attack the defense system, you want the rest of the airplanes to be just a few minutes behind him to take advantage of this.

So it would require more detailed plans. That is the way it is today. This last chart talks about future attrition.

Would you want to use this one, General?

General LeMay. Yes.

In summing this up, gentlemen, we must know what our capability is all the time. In things like navigation and bombing we can run thousands and thousands of sorties, measure the results and tabulate the data and know exactly without any question of doubt what the results are going to be in any given mission.

In this sort of thing, penetration, we cannot be so precise, because we cannot run a realistic mission and actually shoot each other down.

So we have to run exercises with the Air Defense Command on less than a realistic basis and try to assess the results and look at what has happened in the past and try to make an estimate of what will happen

in the future in the way of new equipment, tactics, things of that sort, and try to come up with the answer.

The facts are these: that defense systems are becoming more and more sophisticated; but the very same principles of physics that are applied to the defense systems can be applied by offensive systems also.

Our main trouble is that in the past it has been so easy for bombers to penetrate a defensive system with losses that you can stand that nothing much has been done in the way of research on penetration systems, so our problem is to try to get something done.

We are always short of research and development money. The tendency is to put it on the most difficult problem, which is defense. So we have lots of defensive missiles coming up and things of that sort.

We must make sure that enough research and development money is spent on penetration problems to stay somewhere in the same ball park.

Now in case we do fall behind in penetration systems, there is one thing that we can do. In the past we have never paid any attention to the defense systems.

In World War II, for instance, we took off from England, the Germans knew that we were coming the minute we started circling the airdromes in England, they saw us on their radar screens. We went over. There was never any doubt about whether we were going to be intercepted with fighters or not.

There were always swarms of fighters there, we fought it out with them, flew over the target. We always knew that the antiaircraft was there, was going to shoot at us. We ignored that.

It is true we had an antiaircraft officer on each of our staffs and when we planned the axis of attack the antiaircraft officer would tell us almost exactly the number of rounds that would be fired on us from the various approaches to the target.

It was usually just about the same because the Germans knew how to lay out proper defense, so we picked our axis of attack not on what the defenses were going to be but to get it back or for some other tactical reason to do a more efficient job of bombing and come home.

Now we could do that with an acceptable loss rate. If the defenses get so sophisticated that the loss rate goes up to where we do not want to accept it, then we may have to use a portion of the force to attack directly the air defense system, that is actually drop bombs on some of their communications systems, their fighter fields, their radar sites, things of that sort, or we can attack it indirectly with electronics counter measures methods and things of that sort.

So we believe that in the future the situation will remain the same as it has in the past, and that is a bomber force well-equipped, determined, well-trained, will penetrate any defense system that can be devised.

We are running behind time. The last subject was our ability to survive an enemy attack. I think I will sum that up instead of using the charts. It will save time.

Senator SYMINGTON. We do not want you to compromise on the time. We want you to go ahead. We will adjust our time to yours.

General LEMAY. All right, sir.

Go ahead.

Colonel NICHOLS. The next chart: Can SAC survive a Pearl Harbor type of attack?

Let's look first and see the Soviet attack pattern.

Here are possible patterns coming down this way.

Here we are talking today. We have the mid-Canada line at 55 degrees north that is in and operating, the majority of it.

If a jet bomber comes down this way and is intercepted at this point in mid-Canada, the average SAC bases are at 35 degrees north. [Deletion by Department of Defense censor.]

Here we have the comparison.

I think possibly the committee has already had this comparison.

General LEMAY. These charts bring out the fact that he has got airplanes that are comparable to ours, with good equipment and he is capable of making an attack.

Colonel NICHOLS. Now we have a dispersal plan in SAC. It works like this: Each one of our bases, let's take the base at Fairchild, we have two wings there, each wing will have a plan and the plan will have the aircraft say take off from Fairchild and come down to these green areas. They are what we call orbit areas.

At that position the aircraft will circle. He will await then instructions from his home base if it is not destroyed or from another source if his home base is destroyed, and then he will either land at what we call our dispersal base or go back to Fairchild, depending on what he is told.

We have this worked out for the whole command. The Air Defense Command knows all of these plans and they know in the event of attack the aircraft that were put on the dispersal plan in SAC, where they would go and where they would be circling. The plan, of course, is a lot more detailed than this. I am oversimplifying it.

Actually while the airplanes are taking off with minimum crews in them on this, another group of folks will be getting the flyaway kits and putting them on trucks and taking them off base to dispersal areas.

And then they in turn would wait to find out whether to return to home base or go to dispersal base.

General LEMAY. This is simply a plan for getting out of the way of an attack. [Deletion by Department of Defense censor.]

Let's assume that it is a normal day. We are busy doing our normal training or normal activities and some airplanes show up on the radar screen of General Partridge's defense command. An attack is coming. [Deletion by Department of Defense censor.]

A strong attack would probably destroy most of our bases. We would have to operate from other bases such as were left.

Colonel NICHOLS. We have, I would like to say, several other things.

For instance every time a SAC aircraft lands it is immediately refueled with 70 percent fuel so we never have aircraft sitting around without fuel in the event of an alert of this type.

Now what we would like to do here is assume that we are the Russian General Staff and we are going to sit down and plan an attack on Strategic Air Command.

We are going through here the things that we would have to consider in planning this attack and see how we come out. This study cannot be applied to cities or anything else. Here we are talking about

destroying SAC aircraft. We are not talking about destroying airbases, cities, or anything else. We are trying to destroy the SAC aircraft.

First off we must consider how many aborts we are going to have in our Russian forts. All of the aircraft that take off are not going to get there. Some of them are going to abort. These depend on our maintenance capability, our refueling capability, the proficiency of the crews, and the weather, the type aircraft and equipment we have to come with, the proficiency and the tactics we are using.

If we are using optimum tactics we will probably have more aborts.

General LeMay. This is the Russian Air Force we are talking about. This is a theoretical study of a Russian attack on the Strategic Air Command, and some of the factors that the Russian commander has to consider when he plans such an attack.

We are going to take into account all of these factors, and then vary them back and forth to see what is most important to him, and if we know that, of course then we can be in a better position to defend ourselves.

Colonel Nichols. Next we must consider losses that we are going to lose to the United States defenses.

Senator Saltonstall. To——

Colonel Nichols. The Russians. The Russians are coming in. How many aircraft are they going to have shot down when they come in? Weather is a factor, whether they come daylight or darkness, the tactics they lose, their electronics countermeasures capability, how much alert time they have to give to the Defense Command.

The size of the attack; of course the smaller the attack the better chance they have of hiding it or not giving as much alert time.

The location of the targets they are trying to hit. Very shallow targets on the periphery of the air-defense system, or are they going all the way inland?

United States defense capability: And then of course the bomber self-defense. How well can the bombers defend themselves against attack?

So let's say we are going to lose somewhere between zero and 30 percent of our force to United States defenses.

Gross error: How many of our bombs are going to fall so far from the target that they are going to be ineffective? They are not going to destroy the target.

That depends of course on their navigational capability. We have got to get to the target before we can hit it.

How much target material?

How much do we know about the target?

Type of target we are trying to hit. Is it a very easy or a very hard target?

The bombing system we have in our aircraft.

Is it as good as the K system in our aircraft, or is it about like the old B–29 radar bombing system?

Proficiency of our crews in bombing. Passive defense that we have around our targets. In other words, how much are we trying to throw them off, spoof them, fool them?

And then the general target defense. Let's say that between 5 and 20 percent of our bombs possibly will hit far enough from the target that we will not get the damage we desire.

Dud probability: How many bombs are we going to drop that do not go off? It depends on what time fusing system we use, the training that our crews have, and in the maintenance field that load the bomb, how well trained are they?

The tactics that we try to use on the bomb: Are we going to try to get a delayed action, hit the ground with it, or are we going to airburst it?

General bomb technology of the country: How much do they have, how much do they know about it?

Let's say that somewhere between 5 and 15 percent of the bombs that we drop are not going off.

Bombing accuracy: How well can we bomb? Day or night, here is a difference between visual and radar.

Weather, bombing system in our aircraft, proficiency of our crews, the target materials that we give them, the type target we are trying to hit, the tactics we are using, using a low-level attack it may be harder to identify your target.

The target defense, the combat degradation we get in our crews, how many of them are going to get excited when they get under fire?

Passive defense of the target and the electronic countermeasures of the target that tries to spoof us in seeing the target.

Let's say that generally we think we will bomb somewhere between 1,000 and 10,000 feet.

Weapon yield: How big a bang are we going to get?

Well, that depends again on bomb technology.

Fissile resources, how much material do we have to go into these bombs, bombing accuracy, the target system we are trying to knock out, how big a target do we need on the various types of targets we are bombing, and the tactics we use.

Let's say that we are going to use somewhere between a 35-kiloton and a 10-megaton bomb.

Weapon allocation: How many weapons are we going to allocate to this job of destroying the SAC aircraft?

It depends on the size of our stockpile, number of targets we are hitting, retaliation threat, tactics we use, weapon yield, United States defense capability, bombing accuracy, gross error rate, dud probability and abort rate.

In other words, here we are looking to see how good we were in all of these. Maybe we are going to have to go two bombs per location to be sure we get the SAC aircraft.

Alert time: How much alert time are we going to have to give?

It depends on the size of the attack we try to put out, daylight or darkness, the tactics that we use, it depends of course on the warning system that the United States defenses have, the intelligence capability of the United States and all-important, United States reaction to any intelligence they get.

Let's say between zero and 36 hours.

Now we know that this is impossible. It is impossible to give us zero hours. That means they would have to have an aircraft over every one of our bases and all drop at the same time. I think everyone agrees that that is impossible.

You cannot do that.

Now let's start summarizing some of these on deliverability. These are the same figures that we went down, a maximum force, in other

words with very little aborts, no losses, small gross errors, small duds.

If we went 81 percent of the aircraft we scheduled would get to the targets, in other words, we send 100 aircraft, 81 of them would deliver his bomb to the target, if we had two bombers going to each location, 96 percent of the locations out of 100, we are going after 100 locations, we send the 200 bombers, 2 to each 1, 96 of those locations would be struck or would have a bomb delivered on them.

Minimum: the same applies here, we are going after 100 targets, we send 100 aircraft, only 36 percent of them get an aircraft over. If we send 200 bombers after 100 locations with this high an abort rate, the losses and all, only 59 percent of them would have the bomb delivered against them.

Here we have taken an average column. We will talk more about that on the succeeding chart.

Bomb size and aiming error: Here we have got a 10-megaton bomb, we are going to bomb at 1,000 feet.

We are going to send two megatons per base and zero alert time. Here we are going to use for average column a one-megaton bomb, 3,000-foot bombing error, one bomb, one megaton, 6 hours alert, 35 kiloton, 10,000-foot bombing error, one 35-kiloton bomb and 36 hours.

Now let's first sum up a few of these. Here are all the factors we have talked about, but let's look at is as a maximum force.

We have a very fine force here. We have a low abort rate, low gross errors, low duds, we did not lose any to the defense, we are bombing at 1,000 feet, using 10-megaton weapons and two bombs per location and they did not know we were coming until they dropped, we lose 90 percent of the SAC aircraft.

It should be apparent that this hypothetical attack is a very efficient attack. It also should be apparent that alert time is an important factor in the assessment of losses. The more alert time there is, the more planes will survive. [Deletion by Department of Defense censor.]

Now let's look at it as a minimum force. We are not very good at anything. We cannot bomb. We are carrying very small weapons. We are undertaking one per location.

We let them know 36 hours in advance we were coming.

We get three-tenths of 1 percent.

In other words, we cannot even hit the aircraft that are left on the bases that we could not get off the bases. If we go over to zero hours and the whole force is sitting there, we only get 8.9. Two hours, 2.4. So if we were planning an attack, and this is the way it is stacked up, we would have to come to one conclusion, and that is that we are not ready to go and attack SAC. We cannot do the job. We do not have a good enough force.

Now, let's take it as an average column here and vary some of the factors. Here we take an average column, 17 percent aborts, 15 percent losses, 13 percent gross errors, 10 percent duds, 56 percent delivery capability, 6 hours, we lose 6 percent, zero hours we lose 50 percent, 2 hours, 17, 36 hours, 3.1. You can see that the alert time causes a great variance in aircraft loss.

Let's see what bombing accuracy does. As you can see, at 3,000 feet, 6 percent; 1,000 feet, 3.6; 5,000, 5.8; 10,000, 5 percent.

What this shows is if you are using a large-sized weapon against an airfield, your bombing accuracy is not as important. You do not get the variance with that that you would think you would.

Gross errors: The same is true because you can hit a lot further from the target as long as you are carrying a large weapon and still get the job done, so you do not get much variance here.

Here we are carying losses; 15 percent loss, 6 percent; zero losses, 7 percent; 5 percent losses, 6.5; and 30 percent, 4 percent, so you get a very small variance in the amount according to the number lost.

Now, here we vary losses again and we vary time with it, and you will see that it certainly begins to show the difference here between losses and alert time, in that zero losses, 2 hours alert we lose 20 percent, but the minute we go up to 30 percent losses, 2 hours, 14 percent, so that what the whole study shows is that the alert time is the important thing for saving the SAC aircraft, and everything else is dependent on the alert time as to whether we can run the percentage up and down on the other factors.

General LeMay. Remember, gentlemen, this is a theoretical study and has no relation to any forces in existence. What we are trying to do is to bring out some of the factors of attack and vary them back and forth to see which were the most important.

The results indicate that alert time is more important than anything else. It does not make any difference whether you shoot down zero percent or 30 percent on the bombers coming in. That is not so important. But alert time is. That is the factor that will give us ability to save more of the force.

Senator Symington. General, we have a problem. We have been very interested and quiet, but it is 10 after. How long is the next briefing?

General LeMay. Twenty-five or thirty minutes.

Senator Symington. I would suggest we have that this afternoon, and ask some questions at this point, if that meets with the approval of the committee. Otherwise we will be here until well after 1 o'clock.

Senator Saltonstall. Whatever the Chairman thinks.

Senator Duff. That is perfectly satisfactory to me.

Senator Symington. May I first congratulate you, Colonel Nichols, on a fine presentation.

Is there anything, General LeMay, that you would like to say in summary before we go to the question period?

General LeMay. No, sir, I think we can go right into the question period.

Senator Symington. So in order to split the time fairly we will now proceed.

Mr. Counsel, will you proceed for 10 minutes?

Mr. Hamilton. Mr. Chairman, I really think it would be more profitable if the committee used the time than if I did.

Senator Symington. I suggest you take any time that you want, up to 10 minutes.

Mr. Hamilton. There are only a few points that I wanted to make relating primarily to some clarification, General.

I wonder if you could elaborate just a bit on the disadvantages that result from the crowded condition of the bases, sir.

General LeMay. Well, when you have too many airplanes on a base, you reach a point where you operate inefficiently. You maintain them

inefficiently and fly them inefficiently, so your day-to-day operations suffer.

In addition to that, it is a very good target because there is a large percentage of your force there concentrated on one spot which could be destroyed.

I think Colonel Nichols brought out the fact that natural disasters, the chance of that happening to you increases because the airplanes are parked almost wingtip to wingtip. With fires breaking out in a parking area or something of that sort, it would be very disastrous, tornadoes and things of that sort.

We get forecasts on those things but it costs a couple of hundred thousand dollars to evacuate a field and during the summer months especially out in the Midwest we have tornadoes every day and we are forced to make a decision whether we are going to move or stay.

If we move and the tornado does not hit we have wasted that money, time and effort.

If we stay and get hit, why that is wrong too, so it is quite a problem.

Mr. HAMILTON. Now, I won't ask this question, General. I was going to ask you to elaborate a little on the present state of your alert, but it is my recollection that you are going to have a separate briefing covering the alert.

General LEMAY. We are, yes.

Mr. HAMILTON. Then I won't take up the time of the committee at this time in going into the alert concept. I think actually, Senator, that does conclude the questions that I have.

Senator JACKSON. Senator Saltonstall?

Senator SALTONSTALL. Just one or two questions.

Perhaps, General, if you are going to take up later on anything that I say, tell me so, will you, so we won't go over it a second time.

First, may I say I congratulate you if you are the gentleman who has the initiative and the imagination to work out all these plans.

Are you the gentleman who has done it?

General LEMAY. I had quite a bit of help, Senator, from my staff.

Senator SALTONSTALL. Well, is it your imagination that has created all this?

General LEMAY. This is a combined effort of the entire Strategic Air Command staff to produce plans and training schedules and try in the best possible way to carry out our mission that has been assigned to us in the most efficient manner possible.

It is my responsibility to get the job done but I could never do it on my own alone, of course. I must have a very competent and adequate staff, and I have.

Senator SALTONSTALL. I would say the detail that you have shown us this morning, and probably you have got a lot more, is very much to the credit of your staff.

General LEMAY. Yes, sir; this has been very much condensed. We would like to have much more time to present it to you.

Senator SALTONSTALL. Now the charts that appealed to me particularly were chart 8 which has the bases; chart 16 which showed the combat crews, 1 crew for 1 plane; chart 21, which showed that the bases had only increased one-fourth as fast as the number of airplanes; [deletion by Department of Defense censor], then chart 64, which is the importance of the warning system; then chart 44, which shows, as

I understand it, the smaller the force on any one base, the harder it is for the enemy to pick up.

Is that correct on that chart?

General LEMAY. Say that again?

Senator SALTONSTALL. Chart 44 which shows that the smaller the force, the harder for the enemy to pick up.

General LEMAY. You are talking about if we make an attack on Russia, a small force——

Senator SALTONSTALL. The point I simply want to bring out is this: What you need most today from your point of view, from the point of view of the Strategic Air Command working out the plans that you have shown us in such detail this morning, to do your job the best; or, put it this way, the items of highest priority needed to enable you to do your job well would be, one, more trained personnel; am I correct?

General LEMAY. Yes, sir; that is correct, and we will bring that out in the later briefing. We are going into the personnel situation in some detail later on.

Senator SALTONSTALL. And, two, fundamentally we have got to have more bases available for our Strategic Air Command if we are going to build up the number of planes?

General LEMAY. Yes, sir. We feel that we must have, as time goes or more offensive capability. That must be brought about not only by more airplanes but more bases facilities, and particularly more and better people, higher skilled people.

Senator SALTONSTALL. Now also chart 49 shows the radar defense buildup. [Deletion by Department of Defense censor.]

As I understand it, we are giving high priority now to our radar defenses in upper Canada and particularly in the Atlantic and in the Pacific; are we not?

General LEMAY. Yes, sir; we are doing that.

Senator SALTONSTALL. Aren't those being given high priorities?

General LEMAY. Yes, sir.

Senator SALTONSTALL. So that we are working actively to prevent what Colonel Nichols calls an end run?

General LEMAY. The present plans call for the DEW line, the North Canada line to run across the northern continent, to go down through the Aleutians. [Deletion by Department of Defense censor.] The over-the-water portion will be filled by airborne radars. That will be completed in 1958 or something, I am not sure of that date. You can get that from General Partridge. But by that time the BEAR, the long-range aircraft that the Russians have, will have the capability of taking off from Russian bases north of Vladivostok.

[Deletion by Department of Defense censor.] Then your warning time becomes the distance that the radars on the mainland of the United States can see them.

Senator SALTONSTALL. But am I correct in understanding that we are putting up now a radar system in the Pacific and in the Atlantic that is not airborne but is on ships?

General LEMAY. There are some picketships out there.

Senator SALTONSTALL. And these so-called Texas towers?

General LEMAY. Yes.

Senator SALTONSTALL. So that we are working actively on that problem that you face?

General LEMAY. Yes, sir.

Senator SALTONSTALL. Now the problem of the bases, does the budget this year that is before the Congress contemplate the buildup of SAC bases satisfactorily?

General LEMAY. I am not competent to answer that. I think you had better ask the Air Defense Command that question.

Senator SALTONSTALL. All right; if you will remember it.

Senator SYMINGTON. I do not think General Partridge is here to testify today, Senator.

Senator JACKSON. I think he may have misunderstood the question. I thought your question, was, Senator Saltonstall, whether the SAC bases are adequate.

Senator SALTONSTALL. That is what I intended to say.

General LEMAY. He was talking about radar net, I thought.

Senator SALTONSTALL. Let me ask the question again.

What my question is, Does the present budget that is submitted to Congress for the 1957 year and contemplating going forward into 1958 and what we start this year, does that budget contain new SAC bases and the extensions to SAC bases that will build up the adequacy of the base system for SAC?

General LEMAY. No, sir. I would like to have more. Our base program has generally been behind the other programs.

Senator SALTONSTALL. That is right.

General LEMAY. Because it seems to be one of the facts of life that money is appropriated for hardware, for airplanes at a much more rapid pace than the support facilities from which to fly them, so that our base program has constantly been behind our planned program for getting the combat units ready.

Senator SALTONSTALL. Let me ask one further question on that.

Your airplanes have increased. Your bases have increased one-fourth as much. (Deletion by Department of Defense censor.)

General LEMAY. Yes, sir; and that has caused a concentration.

Senator SALTONSTALL. I understand that.

Now with the budget plans of this year, if Congress grants them, can you give me, can you give the committee, any comparison similar to that comparison? (Deletion by Department of Defense censor.)

General LEMAY. No; I cannot because I do not know what the budget contains. There are many changes since I make up my portion of the budget and send it to the Air Staff.

They change it, it goes to the Department of Defense, they change it, it goes to the Bureau of the Budget, they change it, and I am not informed on that and am not competent in that regard to answer your question.

Senator SALTONSTALL. Let me ask just one more question, possibly two more questions.

The problem contained in chart 16 on the combat crews you intend to take up with us at a later time.

In other words, 1 combat crew for 1 plane is what you have got now?

General LEMAY. Yes, sir. We require more for the alert concept that we are going to talk about later.

Senator SALTONSTALL. In other words, that proportion ought to be greater?

General LEMAY. Yes, sir.

Senator SALTONSTALL. I think I have only one other question, Mr. Chairman. One thing that occurred to me, on chart 23, which was your teletype around the world and which you said was satisfactory, is there full coordination?

Couldn't that be more coordinated between the Army, the Navy, and the Air Force? It seems to me as I looked at that chart that there was considerable duplication and there was one place where perhaps with more coordination used you would get greater efficiency.

General LEMAY. I think we have as full coordination as it is possible to have. You will see on there that the Air Force has communication networks in that we use, are assigned to us fulltime. The Army has some circuits that are assigned to us. We are using some of their circuits. And also the Navy has some, and we are using some commercial circuits, so that there has been full coordination and we are making use of all the available communications facilities that there are, and these are assigned to us on a priority basis, that is those facilities that the Army has we use, we are in.

The same way with the Navy. Some of them we have to share with other activities, and we are given a priority to meet our needs by the Joint Chiefs of Staff, so there has been a full coordination on the communications setup.

Senator SALTONSTALL. I think I have no further questions now, Mr. Chairman. I thank you, General LeMay.

Senator SYMINGTON. Senator Jackson?

Senator JACKSON. General, as I recall the presentation to the Armed Services Committee in the past, you have had about two SAC wings to a base; isn't that about it?

General LEMAY. Yes.

Senator JACKSON. Now that is not a very healthy situation with the Soviets constantly increasing their weapons stockpile and constantly increasing their delivery capability; is it?

General LEMAY. That is not.

Senator JACKSON. So that in order to improve the capability of SAC, which means to have the ability to avoid destruction by a surprise attack, I take it you need more bases?

General LEMAY. We do.

Senator JACKSON. And I am wondering what your thoughts are with reference to the lag that exists. Just take our municipal airports alone. Most of our municipal airports around the country are not adequate to support the B–52; are they?

General LEMAY. No.

Senator JACKSON. Isn't there a definite need there?

I mean isn't there a program that could be worked out with CAA to assist in that direction?

You need every possible field, in the event of an all-out attack, in order to disperse.

General LEMAY. Yes, our base system must be expanded. However, it is a very complicated problem. For instance, the technical qualifications of the people that we have in the Air Force at the present time is low. We only have a small number of really well-qualified people. By concentrating them, we can get better utilization of them, so that if by some miracle we had all of the airbases that we might ever dream of wanting, we would be handicapped in how we could spread our force out by that limitation of trained people.

Now I think that as time goes on, we will be able to disperse some. In fact, we have plans drawn up and submitted to the Air Staff for their approval on that question.

Undoubtedly we can use some of the commercial airports. However, you run into problems there.

For instance, there is a problem right in Omaha where I am stationed now with the municipal airports. The Reserve program contemplates going in there, that is the Continental Air Command who has responsibility for the Reserve program would like to put a Reserve unit on the municipal airport.

The city airport commission is not much interested in it. In fact, they at the present time do not seem to be too much interested in any expansion of the airport at all to meet the future needs of jet transports and things of that sort, so you have a complicated problem to solve.

But we could disperse on civilian airports if we had very minimum facilities there and agreement for the use of them.

Senator JACKSON. But there is this lag in base construction in comparison with the progress the Soviets are making in adding to their atomic stockpile and their delivery system.

General LEMAY. There is a lag in base construction. The bases are lagging behind the rest of the program.

Senator JACKSON. Isn't there a lag in the air defense system too from your standpoint?

General LEMAY. I don't think that it is behind. You have to strike a balance between your offensive needs and your defensive needs. I prefer to concentrate on the offensive, and I think that most military people will agree with me because history is full of examples of people who put all their blue chips on defense and they are no longer with us.

We must have a defense system, as good a one as we can buy after your offensive needs are taken care of.

So I would not say that our defensive setup in the Air Force is lagging behind the offensive.

Senator JACKSON. (Deletion by Department of Defense censor.) Well, I merely say that the DEW line extensions will come in at a time when the Soviets will probably have a pretty good missile, and the use of that line—the effective use—will be for a very limited period.

General LEMAY. That is quite true.

Senator JACKSON. That was my point.

General LEMAY. When the missile comes into general use, the DEW line won't be any protection.

Senator JACKSON. I think there is one other thing that may have been left out here, and that is that the Soviet capability of delivering missiles from submarines would completely flank the approaches that we are building up in the way of an air defense system through the North American Continent.

General LEMAY. That is true.

It will not give any warning of a submarine attack. You can possibly pick the missile up with your coastwise radar sets after it is launched but the DEW line will play no part in that at all.

Senator JACKSON. I think that is all, Mr. Chairman, for now.

We are going into the planes and all that later.

Senator SYMINGTON. Senator Duff?

Senator DUFF. General, first off may I say that I join with the others who have expressed their comments on the very wonderful presentation that has been made on the problem.

Isn't one of the critical points in the whole issue the continuation of very high-class personnel in the service over a period?

General LEMAY. Yes, sir. Our personnel problem is our most pressing one, and if I were given a blank check by the Congress to do anything I chose to increase our combat potential, I would do something about the personnel problem first.

Senator DUFF. That is the more pressing problem than hardware at the moment?

General LEMAY. Yes, sir. We should increase our hardware, too, as I will bring out later in the briefing.

However, before buying new hardware, we should try to operate that which we have in the most efficient manner possible.

We should do that first.

Senator DUFF. And isn't one of the components that enter into that problem the matter of the pay scale to induce people of qualified experience, technical ability, to stay in the service rather than the change that you are constantly subjected to as the result of your current experience?

General LEMAY. Yes, sir; that is true. And we have a very detailed briefing on the personnel situation and I think we will answer all your questions in regard to personnel.

Senator DUFF. Looking at the map, and realizing that most of the strategic airbases are in the southern part of the country, is there a soft underbelly down there that presents a serious problem as a result of the location as they are scattered across the southern part of the United States, by a surprise attack from some other direction than the end run?

General LEMAY. It is possible.

You understand that our base system more or less just grew instead of being properly planned from a tactical standpoint. When we started the expansion again after the end of World War II, to save money we went back in and recaptured some of the bases that were used during World War II. Those bases were built for the purpose of training air units that would fight from overseas bases, so they were situated in the good weather belt in the United States, which is farther to the south.

Naturally the situation has changed now and we want to fight from some of those bases, and we would prefer to have them farther to the north.

So we are there sort of by accident.

Senator DUFF. So that as a result you have a time lag as far as attack is concerned by the bases being located so far south?

General LEMAY. It is possible for submarines to come into the gulf probably and launch missiles from there. It is possible for the turboprop airplane, the Bear that the Russians have, say after 1960 when they probably can refuel it, the range will have been extended a little bit due to normal advances in the state of the art, we know that that airplane will be able to take off from Russian territory and go clear around the warning line and come in from the southeast, and hit the

coast with very little warning, with just what the coastwise radars can see.

But I understand there is a plan for putting a radar net across the southern part of the United States, too, so you would get some warning, at least.

But it is possible, but it is a very difficult thing to do, to go clear around and come in from that direction.

Senator DUFF. Is there any question of our capability with present hardware and personnel to penetrate the Russian defenses?

General LEMAY. No, sir.

Senator DUFF. In any important particulars?

General LEMAY. I think we can do it at the present time, but these situations never stay static, and we must constantly keep our research and development program going. We must increase penetration systems to make sure we can do it.

I think we will always be able to penetrate defensive systems.

In other words, it is one of the principles of war that the advantage lies with the offense, and it is even more true I think in air warfare than it ever was on the surface.

Senator DUFF. Mr. Chairman, that is all I have to ask the General.

Senator SYMINGTON. General, this question of you all being under oath was brought up informally by some members of the Air Force. I assure you the only reason for it is that we want to be sure there is no concept of loyalty, up or down, which prevents any officer from telling, in accordance with his oath, exactly what he believes; and so he cannot be criticized, in any way, by anybody, for so doing.

My first question was largely answered by your answer to Senator Duff.

What you are really saying, are you not, is that you have too many bases in the southern part of the country relative to the number in the North?

General LEMAY. Yes, because the type of equipment that we are operating now, with range limitations, would give us more flexibility if we are closer to the target.

In other words, with the B–47, for instance, there are areas in the United States where 1 refueling is required and other areas where 2 refuelings are required. [Deletion by Department of Defense censor.]

Senator SYMINGTON. Thank you.

Now, on chart 13 you showed that chart and you said that the B–36 must be replaced as soon as possible.

[Deletion by Department of Defense censor.]

Now, on chart 15 you emphasized the great importance of jet tankers.

[Deletion by Department of Defense censor.]

You need these quite badly, these jet tankers?

General LEMAY. Yes, sir; we do.

Senator SYMINGTON. How many do you think you would like to have?

General LEMAY. Well, we need a ratio of about 2 tankers to 3 bombers.

Senator SYMINGTON. If you were given a number of B–52's you think are right for the defense of the United States, how many B–52's do you think you should have?

General LeMay. Of what time period are you talking, sir?

Senator Symington. As soon as you could get them if you want to replace the 36's and the 47's.

General LeMay. I would like to delay the answer to that question until after you have seen some more of them because you will understand a little better what I am talking about.

Senator Symington. And therefore you would probably like to delay the same answer to the KC–135 tankers, too, then, wouldn't you?

General LeMay. Yes, sir.

Senator Symington. Inasmuch as it is in ratio. I can understand that.

Now in chart 44 you talked about advantage in numbers, that the less planes you had going in, the less chance of being detected.

Does that mean that you would like to have your Strategic Air Force, and I oversimplify it, with only one plane so that you could not be caught?

General LeMay. No, sir.

Senator Symington. Would you expand on that, please?

General LeMay. I did not mean that at all. That was simply shown as one of the factors that every commander has to consider when he plans an attack.

You know that the air defense system, in scanning your skies constantly with your radars, have a certain number of unidentified airplanes on there all the time. The system just is not too perfect. So if we can accomplish the mission with the number of airplanes that is something less than that number that have been identified, why you probably could throw off the defense.

You probably would not do it that way, but it is one of the things you want to think about.

Senator Symington. Would you repeat just for my edification—I have 4 more minutes—just very briefly this: Let me put it to you this way.

As I understand it you believe you need many more planes in SAC instead of less planes; is that right?

General LeMay. Yes; we need more.

Senator Symington. I think that develops the point.

On chart 53, the importance of prior knowledge; have you got that chart?

In answer to Senator Saltonstall which I am not sure that you heard, did you say that you felt that the DEW lines were adequately progressing, the defense lines?

Does that mean that in your opinion you can ever have a DEW line which will prevent the Soviet strategic air force from attacking the United States effectively?

General LeMay. No; I do not mean that.

Senator Symington. Following your theory about offense, is it your opinion that the Soviets will always be able to get into this country and therefore our greatest defense and really our only defense is our capacity for deterrence and their knowledge of that fact?

General LeMay. I do. I do not think any defense system will ever be airtight against an enemy attack.

Senator Symington. The more money you put in the DEW line, the more time you will have which is vital to your dispersion problem; is that right?

General LeMay. The best thing that the Air Defense Command can do for SAC is to provide warning time. That is the most important thing they can do for us.

Senator Symington. As I understand it, you are badly short in planes. We went into this base situation. You also need many more bases. You will give us more details on that; is that correct?

General LeMay. Yes; we do need an increased number of bases.

Senator Symington. Do you know how many more bases you would like to have for SAC?

Will that come later?

General LeMay. I would like to talk about that when we talk about the size of the force.

Senator Symington. I just want to be sure we get into it.

General LeMay. The force automatically generates a requirement for bases to adequately house them.

Senator Symington. Certainly if your ability to resist a sudden devastating attack is in direct proportion to your ability to disperse, which in effect is what you have said this morning, then the more planes you have and the more bases you have on which to disperse those planes, the greater the chance you have of surviving the initial attack if it was the logical attack; that is, a tactical attack. Is that correct?

General LeMay. Yes.

Senator Symington. Is that a fair statement?

General LeMay. Survive an attack with sufficient force left to carry out your mission.

Senator Symington. In other words, with a sufficient force left so that you would know and they in turn would know that you could in turn destroy them.

I have no further questions at this time.

Senator Welker, as always, we welcome you to our meetings.

Senator Welker. Thank you, Mr. Chairman.

I notice it is lunch time. Glad to see you again, General LeMay. I have no questions.

Senator Symington. We are going to meet this afternoon and we would be very glad to have you join us, Senator. As a former Air Force officer, you are welcome any time at your convenience.

Mr. Counsel, would you like to ask any further questions at this time?

Mr. Hamilton. Nothing, thank you, Mr. Chairman.

Senator Symington. Senator Saltonstall?

Senator Saltonstall. I do not think so.

Senator Symington. Senator Duff?

Senator Duff. Yes, I would like to ask one question.

Is it not true that we have the present capacity both in hardware and in personnel to make a completely catastrophic attack on the enemy in the way of retaliation?

General LeMay. Yes, sir. I think that if war were to come today, that we would do very well.

Senator Duff. That is what I wanted to ask.

Senator Symington. I would like to ask this question.

How much would that depend upon whether we in turn were hit suddenly without warning in a devastating atomic attack?

General LeMay. If we got a complete surprise as you saw by ability to surprise and our ability to survive a surprise attack, we would suffer very great damage.

If it were down near that zero point as you noticed on the charts, we would not have very much left.

However, I do not believe it will happen that way. I answered the Senator's question on the assumption of a reasonable method of a war breaking out.

Under those conditions, and they are not to our disadvantage, I think we would do very well.

Senator Symington. On the basis of the present program as you understand it, and as you get intelligence on Russia, on the basis of what you know and are told about our own program, do you believe that condition will continue in the next 3, 4 or 5 years?

General LeMay. No, sir; I think the situation is deteriorating.

Senator Symington. Do you think it is deteriorating very rapidly under the present programs?

General LeMay. Yes, I do.

Senator Symington. Will we get into that further later?

General LeMay. Yes, sir; we will.

Senator Symington. Thank you.

We are going to meet again at 2 o'clock and therefore we will adjourn at this time unless somebody has a further question.

(Whereupon, at 12:45 p. m., the committee was recessed, to reconvene at 2 p. m. the same day.)

Afternoon Session

Senator Symington. At the request of General LeMay, the Chair agrees that the following briefing will not be made a matter of even the executive record. The Chair has stated that he would be glad to go with the other members of the committee to discuss the matter with the chairman of the Senate Armed Services Committee itself, Senator Russell; and if Senator Russell decrees that the briefing should be made a matter of record, then take it up again with the Secretary of Defense.

This applies to the particular briefing in question, which has to do with war plans.

Senator Saltonstall. Would the Senator yield for just this statement?

Senator Symington. I would be glad to yield.

Senator Saltonstall. We will go back—may we go back on the record when General LeMay states that the matters which he believes should not be even taken down by a stenographer have been completed?

Senator Symington. Of course.

Senator Saltonstall. What I was bringing out was that, General LeMay, you will tell us when we may go back on the record?

General LeMay. Yes, sir; surely.

Senator Symington. Very well, then, from here on we are off the record.

TESTIMONY OF GEN. CURTIS E. LeMAY, ACCOMPANIED BY MAJ. GEN. JOHN P. McCONNELL, MAJ. GEN. ROBERT TERRILL, AND COL. EDWARD M. NICHOLS—Resumed

General LeMay. Mr. Chairman and members of the subcommittee, in order to bring out the information which was indicated to me the committee would desire pertaining to our present capabilities, we have prepared a typical type war plan, which includes timing and penetration of the enemy defenses and weight of effort, in terms of aircraft strikes against the enemy and weapons delivered.

The information contained in this discussion I believe to be most sensitive to the security of the Nation. I am happy to give it to the committee, but since it does contain information of such a sensitive nature, I recommended to the committee that no part of it be made a matter of record.

This information has not previously been given to anyone except the Joint Chiefs of Staff, the Director of the CIA, certain members of the National Security Council, and the Chairman and two members of the Atomic Energy Commission.

I made the same recommendation to these authorities pertaining to the security that I have made to the committee, and in each instance these authorities accepted this information without making it a matter of record.

General Terrill will make his presentation.

Senator Symington. The record will show at this point we agreed with General LeMay's request.

(Off the record.)

Senator Symington. Back on the record.

General, many times an all-embracive question can be asked which, in my opinion, can result in a difficult problem for you to answer.

For example, so that we understand what I am getting at, the Air Force Chief of Staff recommended more than $20 billion to the Secretary of the Air Force, and the Secretary of the Air Force cut that to $18.8 billion.

This is a matter of unclassified record.

Thereupon, the Secretary of Defense cut that $18.8 billion to $16 billion; and it was then put back to $16.5 billion.

So $3.5 billion was taken out of the recommendations of the Chief of Staff of the Air Force this year; and yet, when asked if he supports the budget before the Senate Armed Services Committee, the Chief of Staff of the Air Force, in accordance with propriety, no doubt, and tradition, says that he does fully support the reduced budget.

Based on the figures just referred to, in my opinion it would be difficult to answer that question in that way if actually under oath.

So I want to present to you and General Partridge and the other representatives of the Air Force here today, that you are under oath to give this subcommitee exactly what you think; and I would be especially careful of casual answering of overall questions in your reply, which could be used later to imply that "General LeMay told us in the hearing that it was all right."

And I want to make that observation. I want to make it on the record. I feel very strongly about it after observing the hearings over many years.

Have you any comment to make on that?

General LeMay. Yes, sir. May I make a comment on that?

Senator Symington. On the record.

General LeMay. I am sure you understand this, Mr. Chairman, having been Secretary of the Air Force at one time, that when we prepare a budget and make our recommendations for our needs, we do it considering only military items; in other words, it is a military problem that we have to solve, and we have given a military decision, although we have taken money into account in many cases where we are judging two weapons systems, and we take the cheapest, of course, and it is obvious why.

We don't consider the political situation, the economic situation, or anything of that sort.

So the Secretary must, and the administration must, then grind those things into the solution of the problem, and they say, "This is what you will have and this is the way you will do it."

When that decision is made, we, as soldiers, then get busy and implement that program. So when we say we support that program, we say "Yes, Boss, we are going to do what you want, the way you want it."

We may not like it. We may think, in our judgment, it is wrong and we should do it some other way, but that is the way we must work, and we do.

Senator Symington. I am glad that you have made that reply. A book by a well-known authority stated that in the last 50 years, the chief change in our form of government has been the delegation of authority by the legislative branch to the executive.

However anybody must admit that the Congress has the duty and therefore the right to raise and support the armies, the navies, and the air forces of the United States, under our Constitution; and we also have the right, therefore, before the money is put up, to find out what you and the people to whom you report, the Joint Chiefs of Staff, by law the top military advisers to both the Secretary of Defense and the President, believe is right, your military opinion.

Under these circumstances, when you are asked for your military opinion you should give it to us as you see it.

Am I correct?

General LeMay. That is correct, sir.

Senator Symington. Thank your.

General LeMay. I believe, whether we are under oath or not, that if we are asked our personal opinion on things of that sort, that we are required to give them as a matter of duty.

Senator Symington. I am glad to hear you say that. I have taken quite a little of my time. There are a couple of questions I would like to ask based on Chart No. 76.

(Off the record.)

Senator Symington. On the record, please.

Senator Saltonstall. General LeMay, I would like to have you repeat as succinctly and as briefly as you can the answer on the record that you made to Senator Welker a few minutes ago which I thought was an excellent answer on the question of the relative values of missiles and bombers.

General LeMay. Yes.

Senator SALTONSTALL. Succinctly, if that is a good New England word.

Senator SYMINGTON. It sounds like maple sirup, so it probably is.

Senator JACKSON. You were talking about the glamour of the ICBM.

Senator SALTONSTALL. You made an answer to Senator Welker who asked you the question.

Senator WELKER. Are you concerned with respect to the statements made by K & B in England with respect to the fact that they will soon have or now have an intercontinental guided missile.

I think that is the substance of my question.

General LEMAY. I think my answer was I did not consider it as important as a lot of the newspaper stories indicated that the rest of the country might consider it because I know from operating airplanes that getting one of these missiles to operate efficiently and effectively is a very difficult job, and we expect that the first models of the intercontinental missiles will be less efficient than the manned bomber, and it will take some time, lots of operation of these missiles to make it a really effective weapon, as effective as a manned bomber.

We fly new model airplanes thousands and thousands of hours. We get the bugs out of them and perfect the mechanisms.

Missiles must fly thousands and thousands of hours too, and that is going to take time and be an expensive program.

So I would expect that the first models to arrive on the scene will not be as efficient as the bomber airplane.

Senator SALTONSTALL. Mr. Chairman, thank you.

Senator SYMINGTON. Senator Duff?

Senator DUFF. There was an article in the New York Times this week, General, possibly you saw it, by a rocket expert in Germany who outlined in detail what you have just said, namely, that while the intercontinental weapon, ballistic weapon, may be invented, the accuracy of it would be in very grave doubt for a very long time, and while they could dump them they would not know where they were going to hit.

Is that in line with your thinking?

General LEMAY. I think that is a true statement.

(Discussion off the record.)

Senator SYMINGTON. Back on the record.

In reply to Senator Saltonstall's question about missiles, I would like to put on the record my question and your answer to it.

I said that in other words the missile picture is a very romantic picture, but that what you really need now in your opinion are more B–52's as rapidly as possible; is that correct?

General LEMAY. I think that is correct; yes.

Senator SYMINGTON. You would however agree in the future missiles are going to be very important and justify the President's decision to make it the No. 1 priority in research and development?

General LEMAY. That is true, we should carry on and develop this missile with the utmost urgency. But before then, we need more B–52's.

Senator SYMINGTON. It is nearly 3:30 and I would like to ask Senator Jackson if he has 1 or 2 more questions, then Senator Welker.

Senator JACKSON. General, if you assume that it is true that you

can have an IRBM with a CEP of 1,500 feet, and the enemy had them in quantity with a hydrogen warhead capability, would you say that we would be in pretty bad shape insofar as our allies and our overseas bases are concerned?

General LeMay. Yes, under those conditions I think we would be.

Senator Jackson. I am just making the assumption. It is claimed that we will be able to have, we hope to have, an IRBM of that CEP. I don't know. The hydrogen warhead helps on the CEP; does it not?

General LeMay. Yes.

Senator Symington. Senator Welker?

Senator Welker. General, there is one thing, as a member of the Armed Services Committee, that has caused me a great deal of concern with respect to the many submarines that the Communists have.

We have been led to believe, at least I have, that he has submarines that can well approach the shore with launching platforms and so forth.

I am asking you if it is not a fact, if he came in close to our shores and lobbed some missiles over here with the hydrogen warhead, we would be in pretty bad shape?

General LeMay. Well, it is certainly possible that submarines can carry missiles to the surface and fire them.

However, you have a lot of problems in getting that done.

For instance, if you have a missile of X accuracy if fired from a stationary platform on the ground and you put it on a submarine, it is not going to be as accurate. It is going to be X plus something, so many feet, because of the floating motion of the platform, so you have that problem.

Then again you are never exactly sure where this submarine is. They know approximately where it is within the errors of modern navigation, but you have to add that error in navigation to the error of the missile, too, so there are lot of problems to this. I don't say it can't be done, can't be solved, but that does degrade the effect of the missile.

Senator Welker. General, my concluding question is this, as to why I worry about this matter:

Should he launch just a few wild skyrockets that go off in any direction from near our shores, he is going to do tremendous damage wherever he hits, even if it is out in South Dakota. Above all, he will do a tremendous damage to the morale of the American people if they think they are likely to be hit even if it is a complete miss, as far as what the Communists intended is concerned.

I am just wondering if the morale of the American people would not be terribly hurt if they fired a couple of them wildly. They might hit Washington the first crack or they might hit Bay Horse, Ind., on the same shot.

General LeMay. Well, I think the morale might be hurt terribly, but I do not think they would be physically hurt very much.

Senator Jackson. Right at that point, assume that weather is with them and you have a large yield thermonuclear weapon with the fallout problem.

It is conceivable that you could miss a State and still destroy an awful lot in the State in the way of people, and so on.

General LeMay. That is quite possible. I am not really an expert on this fallout. In fact, I do not think there are very many experts around because we do not know too much about it.

Senator Jackson. I do not know either.

General LeMay. Now fallout is not the horrible thing that some people might lead us to believe in that if you can just get under a couple or 3 feet of ground, just in a basement or something like that and stay there for a while until this hot air has cooled off a little bit, and the air cools off rapidly, then you can get out.

In other words, a little training will pay you big dividends in your casualty rate.

Senator Symington. Now, gentlemen, it is after 3:30, and we have two more briefings this afternoon. General LeMay, we will turn this over to you.

Are we back on the record in this particular briefing?

General LeMay. Yes, sir; we are now back on the record.

Senator Symington. We are now back on the record.

General LeMay. Mr. Chairman, we will now present the information which the counsel has asked for pertaining to the procedures by means of which Strategic Air Command and other unified specified commanders responsible directly to the Joint Chiefs of Staff effect coordination of atomic efforts in response to a directive promulgated by the Joint Chiefs of Staff.

These coordination procedures, over a period of years, have developed a pattern and their results have demonstrated certain conclusions which have been reached by the unified and specified commanders during the process of coordination.

As a description of the procedure unfolds you will see what these conclusions are, but prior to a description of the procedures themselves and the coordination of effectiveness which we have achieved by them, I would like to present to you very briefly the conclusions of some war games which have been played by these same commanders.

The reason I want to do this is because the conclusions of the war games and the conclusions reached as the result of the war games are the same conclusions generally which have been reached by unified and specified commanders in the process of their coordination exercises.

And these conclusions have also been arrived at by the Joint Chiefs of Staff as indicated by their latest directive to us which we will apprize you of at the end of the briefing.

General McConnell, the Director of Plans, will give you a very brief résumé on the results of the various war games and he will be followed by Colonel Hanlon from the Office of Director of Intelligence on the outline of coordination procedures.

General McConnell. Mr. Chairman and members of the subcommittee, these are names of war games which have been played either by the Air Force, by the Navy, by the Army, or by unified and specified commanders commencing in 1954 and going on up to the present time.

Some of them went back as long ago as 1952, I believe. They are just for the purpose of indicating that those war games are played by everybody and either unilaterally by each service or else jointly by all of the services.

Now in a limited war game, which is normally played unilaterally by one service, you do not come out with the same answers which you

do in a detailed war game which is played jointly by all of the other services.

Generally though you do come out with the same conclusions, and it is the conclusions that these war games have reflected, spread across the board, that we are going to show you before we go into the next presentation.

Before we do that, I would like to just give you an indication of how a war game is actually played.

Now the war game is played by two teams normally with a game director who sets forth the rules of the game and determines the perimeters under which it is going to be played. Then a red team with its defensive and offensive capability and a blue team with its defensive and offensive capability, following the rules that have been laid down by the game director and his staff.

They then play their forces, both offensively and defensively against one another, based upon the intelligence which they have of each other and the tactics which they desire to use within the perimeters which have been set forth by the game director, and these are handed to a game coordinator and his staff.

He evaluates them to determine what the result was in each one of the exercises that took place.

Now, sometimes it takes weeks and weeks and machines to tell what happened to a given exercise that took only 1 day actually to perform.

It has to be that detailed before you can come up with the results of the war game.

Then after that has been done, you come up with the results of the play. I just wanted to explain that to you to show you how thoroughly this is gone into.

I will give you one example of how you assess a particular facet of the war game in terms of whether or not something will or will not happen.

This is a bomber which is going to attack the base. The problem here for the coordinator is to determine whether or not the defending fighter was able to get off this base, was able to shoot down the bomber, and we have to come up with the answer.

We have to come up with that answer on all of the fighters that are plotted against all of the bombers to come up with the right one. This is just an example.

These are what we call the models and the factors, and the coordinator, the chairman of the game at this time, by agreement between the other sides in assessing all of the capabilities of each side, has agreed that these are the probabilities of this 1 fighter getting that 1 bomber if they were taken separately.

He has a 50 percent opportunity of identifying and detecting that bomber from his GCI radar.

The fighter has a 90 percent opportunity of scrambling.

He has a 70 percent opportunity of making an air-to-air acquisition of the bomber after he becomes airborne with his own fighter radar. He has a 70 percent opportunity of converting that acquisition into an attack, and he has a 50 percent kill probability.

Now, then, when you multiply all of these together, you come down and find out that the overall probability of whether or not under these circumstances the attacking fighter will shoot down the bomber is 11 out of 100.

So then what you actually do, as an example, is you Monte Carlo it. By Monte Carloing it, you put 89 pieces of paper in a hat which says that the bomber will get through, and 11 pieces of paper in a hat which say that he will not get through, and you pull out a piece of paper. That is not done, of course, by hats and paper. It is done actually by machines, IBM. We wanted to show how that was done because we will have considerable to say about the results of war games, and these games results are, we believe, as valid as anything can be, without actually getting into a war of our own.

We would like to show you what the conclusions of these war games have generally all been, regardless of whom they were played by.

The first conclusion is that airpower is decisive.

It does not mean necessarily that the war is over the minute the air power battle has been won. It does mean that when the air power battle has been won and you are free to roam the skies of the enemy, the decisive phase has been concluded.

That is what we mean by air power is decisive. All of these war games have indicated that regardless of by whom they were played—joint, unilateral, Army, Navy, or Air.

The second conclusion was that the offensive air power determined the outcome. It was not the defense which determined who won the battle. It was the offensive which determined it.

The third conclusion was that in order to exploit fully the capabilities of air power, it would be most desirable for the conduct of the air power battle phase, the decisive phase of the war, to have a single worldwide air commander who would be able to exploit the atomic forces and other air forces of all the nations and all the services into one coordinated attack.

And the final conclusion is that the only forces that are effective in the decisive phase are those which can fight from their day-to-day location, and are in an advanced condition of alert.

None of the other forces got into the war until after the decisive phase had been accomplished.

Now with those preliminary remarks, Colonel Hanlon will give you the results of the Joint Chiefs of Staff directed coordination exercises.

TESTIMONY OF COL. ALFRED J. HANLON, CHIEF, TARGET ANALYSIS DIVISION, D/INT, SAC

Colonel HANLON. Mr. Chairman, gentlemen, up to this point we have been concerned primarily with showing you the overall picture of SAC's atomic air offensive.

Five years ago no further enlargement of this picture would have been required, for the simple reason that 5 years ago SAC had the only offensive force in the world with an atomic capability of any significance.

Since that time, however, not only have the Soviets built up a sizable long-range air threat, but also other United States commands have been developing an atomic delivery capability, so during the next few minutes I would like to trace briefly for you the history of what has been done to date to tie in this SAC offensive with those of the other United States commands, and, secondly, to outline for you some of our current and future planning in this area of intercommand coordination for the attack.

In 1952, the Joint Chiefs of Staff, recognizing the growing need for a positive control and coordination of all the forces possessing an atomic capability, published a directive on the subject.

(Deletion by Department of Defense censor.) It is still in effect today as our basic guide for the coordination of targets and weapons. It provides for the Joint Chiefs of Staff a positive centralized control over the allocation of weapons, and sufficient control over their expenditure to insure that targets will not be wastefully overbombed, that appropriate targets will not be ignored, and so forth.

In short, to insure a mutually supporting, well-coordinated attack among the various JCS unified and specified commands.

Second, the paper established authority for establishment of the necessary control machinery to effect this supervision.

Channels for the lateral coordination of planning among the various JCS commands, a jointly staffed war room annex in the Pentagon, and joint coordination centers in appropriate theaters of operation to feed information into this joint war room annex.

The Chief of Staff of the Air Force, who is charged with the establishment of all this machinery, he in turn later on delegated the establishment of the theater JCC's to the commander in chief of SAC.

Fourth, the JCS commanders—and incidentally these commanders are in the European theater CINCEUR, CINCLAND, CINCNELM, and SAC, and in the Far East, CINCPAC, CINCFE, and SAC.

We are directed, then, to coordinate their atomic target annexes among one another and to submit them to the Joint Chiefs for approval, and finally the Joint Chiefs of Staff were to review these target annexes, resolve inconsistencies and conflicts in them, and approve or amend them.

One of the first steps in the establishment of this machinery was setting up the theater JCC's, joint coordination centers, which as I mentioned General Vandenberg, then Chief of Staff of the Air Force, delegated to General LeMay as his personal agent and field representatives early in 1952.

Accordingly, later on that same year, 2 joint coordination centers were established, 1 in the Far East and 1 in Europe.

These JCC's are permanently manned at all times in peacetime by small teams from the various commands concerned in each theater, with provision for immediate expansion in the event of hostilities under the control of general officers who are designated as the field representative Far East and the field representative Europe, respectively.

In peacetime these general officrs are appointed on paper only as additional duties.

The JCC's have no planning responsibility nor do they have any operational control or command authority over the atomic forces. They simply serve as message centers, clearinghouses between the commands and the Joint Chiefs of Staff through the joint war-room annex.

Accordingly, they have worked out detailed standard operating procedures for the passing, posting, evaluating, and reporting of operational strike data.

The principal functions of all concerned on this chart are shown in numbers which are summarized in this box at the bottom.

The individual commanders, as shown here then, announce their intentions, schedule the strikes, execute the mission, and report results to the joint coordination centers.

The JCC's resolve differences in the case of target duplication, and so forth, by mutual agreement wherever possible among the commanders concerned, and report results to the Joint Chiefs of Staff.

The Joint Chiefs reserve the right to allocate the weapons, and they are the final authority for resolving any differences or conflicts if in fact it has been impossible to resolve these differences at the JCC level.

This seldom happens, incidentally, or has seldom happened.

Turning now to a second piece of the machinery directed by the original paper, lateral coordination among the commands, this chart shows very briefly the history of the target coordination conferences that have taken place to date among the various unified and specified commanders.

Following the original directive in 1952, two conferences were held in 1953, one at Frankfort among the European commands and one at Pearl Harbor among the Pacific and Far East commands. Neither of these conferences was too successful in coordinating targets, primarily I think because it was our initial attempt at coordination and also because the original directive had been very broad and general in its definition of the type and degree of coordination desired.

In 1952, however, working under a much more specific directive and with the benefit of the previous year's experience behind us, we had two more conferences both of them at SAC headquarters in Omaha, and in 1954 we achieved our first semblance of success in this field.

We did, in fact, eliminate all target duplication among the various commanders in 1954.

[Deletion by Department of Defense censor.] In 1955, under the joint strategic capabilities plan, 2 more conferences were held, 1 at Pearl Harbor and 1 at Omaha, and again we reached complete agreement among the commanders.

For the sake of giving you some feel of what is involved in this type of coordination, I would like to go into a little bit of detail on the 1955 conferences.

At the outset of both conferences, we arrived at these working agreements. The first one listed here is by far the most important and significant of the three, namely, that destruction of Soviet airpower had now become the priority task.

The other two agreements shown here are pretty much technical in nature, just primarily to insure that all of the target annexes would be in phase.

Since weapons are allocated on a quarterly basis, we all agree to use the final quarters allocation for purposes of standardization, and we also agreed that coordinated targets would be programmed for destruction during the allocation cycle.

This of course would insure all the commanders that targets coordinated out of their systems as well as targets being struck in their support by another commander would, in fact, be programed for attack during the life of the current war plan.

Having arrived at these agreements then, a detailed analysis was made of all the target annexes of the various commanders, with the results shown on this chart.

We found that in the Far Eastern theater, there were duplications of programed weapons on 115 airfields and 40 complexes, and triplications on as many as 37 airfields and 7 complexes.

A similar situation prevailed in Europe where there were duplications on 121 airfields, 48 complexes, and triplications on 31 airfields.

Senator SYMINGTON. You say duplication and triplication.

Between what?

Colonel HANLON. This means, sir, that two commanders had weapons programed for 115 of the same airfields, and over here it means that three commanders had weapons programed for 37 airfields.

Senator SYMINGTON. Asking for my colleagues, what is a complex?

Colonel HANLON. An industrial target complex, sir, is generally an urban industrial area as opposed to an airfield or a radar site or a missile site.

Senator SYMINGTON. And a final request, only for information, please read out what those commands are in detail once so we know what they are.

Colonel HANLON. Yes, sir.

Commander in chief of SAC, Commander in chief of the Pacific Command, Commander in chief of the Far East, Commander in chief, Alaska.

Down here SAC, the Atlantic commander, CINCEUR, the European Command, and Commander in chief of the Northeast Atlantic and Mediterranean.

Senator SYMINGTON. Thank you.

Colonel HANLON. Now although our goal in 1954 had been complete elimination of all of these duplications and triplications, by 1955 the picture had changed so rapidly in terms of both weapons availability and the increasing Soviet threat that a new concept had evolved.

It was now apparent to all of us that in certain cases, in the cases of the highest priority targets, allocation of weapons by two commanders could and should be made.

This would provide, in the event that war should start with no strategic warning whatsoever, greater assurance of destruction to the two commanders most vitally interested in those targets, or, in the event we do get some strategic warning, greater operational flexibility to those commanders, since in this latter case the JCC's, the joint coordination centers, could swing into action and prevent unnecessary duplication or overbombing anyway, thereby giving one of the commanders another weapon to use on a target of opportunity or something of that sort.

I would like to show you a couple of charts here now just to give you an idea of the general location and areas where these targets are.

This chart, I am afraid, does not show up too well, but down here we have just an explanation of the legend which I will explain to you verbally.

The blue dots on this chart—incidentally this first one represents only airfield targets—the blue dots represent targets which were coordinated to SAC for strike by agreement of all the unified and specified commanders.

The orange ones are those targets, airfields targets, which are programed for attack by CINCEUR in the European area, and by CINCFE over here in the Far East.

The black dots which I doubt that you can see at all, are generally up in this area, are Navy targets, CINCLANT targets in this area, and there are a few black ones over in the Far East which are also Navy targets, CINCPAC.

The only duplications remaining are these few, very few red dots which you see on the chart up here in the European area, and over here in the Far East, and these, as I mentioned, are only the highest priority airfields which are of vital interest to commanders.

Targets which are duplicated by SAC with another commander are shown on here in dots which are half red and half blue.

(Deletion by Department of Defense censor.)

You will notice in general that with the exception of SAC's targets, all of them, all of the other commanders are clustered around the peripheral areas here in both theaters, which gives a pretty good indication of the range limits of their delivery capability.

This next chart shows the industrial target complexes as opposed to the airfields.

Senator SYMINGTON. Why don't you get a better chart than that? You can't understand that thing very well.

Colonel HANLON. I think those colors stand out a little better now.

This, as I mentioned, shows the industrial target complexes. The color scheme is still the same as for the airfields, the blue dots representing SAC targets, the orange ones CINCEUR, and CINCFE, the black ones CINCLANT and CINCPAC's and the red ones are duplications.

You will notice there are practically no duplications in the target complexes. This is because of course they are not of such vital importance to the air-power battle as the airfield targets.

The general groups and areas of interest are also the same as for the airfields.

[Deletion by Department of Defense censor.]

Just a word of explanation on the reserve figures shown on this chart. This figure has no bearing whatsoever on the JCS reserve which General LeMay mentioned earlier. This is a reserve maintained primarily by the Navy and the theater commanders out of their allocation in order to hit mobile targets and targets of opportunity such as submarines, troop concentrations, and so forth, which cannot be preplanned.

SAC retains no reserve whatsoever, never has retained a reserve, for the reason which General Terrill mentioned earlier.

(Deletion by Department of Defense censor.) We consider it of the utmost importance to win the air-power battle.

General LEMAY. I might point out in that reserve that Strategic Air Command has no reserve.

All of its bombs are programed on targets.

We can do that because of the type of mission we have assigned to us. Some of the other commanders by the type of mission assigned to them require reserve.

Senator SYMINGTON. I do not understand that, as long as you have mentioned it.

General LeMay. Well, I have an approved target list [deletion by Department of Defense censor], and I know the priority, general priority of those targets, so I can go ahead and spend my allocation on them.

However, General Gruenther for instance he does not know exactly how the Russian armies are going to attack. He may want to shift them around or throw some additional weight in on some targets that he does not know about now that may materialize later so he very wisely I think holds a reserve for that purpose.

Senator Jackson. You have fixed targets?

General LeMay. Yes. Although General Gruenther may ask me to hit one of these targets for him and through our advanced headquarters we would do that.

Senator Symington. Go ahead.

Colonel Hanlon. Turning now from the past to the present, I would like to outline for you some of our current work in this area.

[Deletion by Department of Defense censor.] The latest directive from the Joint Chiefs on this subject we have just received within the last few weeks.

Senator Symington. Excuse me, you said this briefing would be about 25 minutes.

How much longer have you to go?

Colonel Hanlon. About 5 minutes, sir.

Senator Symington. We are pretty close. Thank you.

[Deletion by Department of Defense censor.]

Colonel Hanlon. The commander-in-chief of SAC has been directed to submit a summary of the procedures worked out at this conference, and to submit recommendations as to future coordination conferences to the Joint Chiefs of Staff.

Now I am sure it must be obvious to you gentlemen that this type of coordination is going to be a far cry from anything which we have been engaged in up to the present time.

As long as only targets and weapons are involved, this coordination at the unified and specified command level can and does work satisfactorily, as I think we have shown in the last 2 years.

However, we have barely scraped the surface of the problem yet, and the deeper we get into it, the more apparent it becomes that coordination of this sort of thing is at best a compromise solution, particularly when tactics and timing start entering the picture as they are now doing, and as they inevitably must in a global offensive of this type, the plain fact becomes more and more clear, as General McConnell indicated earlier, that the only real solution to the problem is to have a single atomic commander over all the atomic forces, such as commander appointed by and responsible to the Joint Chiefs could direct the atomic offensive to destroy Soviet air power.

Then, instead of having a series of separate coordinated target systems, we would have a single JCS unified target system. This single commander could direct the disposition of all the forces and the timing of the attacks so as best to insure this primary single goal—achievement of this primary single goal of destroying Soviet air power.

In short, gentlemen, the airpower battle could be waged as any battle should be waged, by command rather than by compromise.

This concludes my portion of the briefing.

Senator Symington. Thank you, Colonel.

General LeMay. This has been a very technical briefing, Mr. Chairman. What this means is that we started out very simply, just to coordinate targets so we would not destroy the same target twice.

Now we are drifting into coordinating our tactics and weight of effort, timing of things, and that sort, and we are drifting towards what we airmen have maintained all along, to fight an airpower battle requires a single commander.

We think that has to come sooner or later, the sooner the better. This is the first indication that we are drifting to that. We know we are going into the next war outnumbered. If we go in piecemeal and not organized, we are handicapping ourselves that much further.

Senator Symington. Now, we could ask questions against this briefing, but the next one is how long?

General McConnell. About 20 minutes, sir.

Senator Symington. In order to concentrate our time, I suggest that we have the next briefing now if it meets with the committee's pleasure, and then ask questions against both, or defer until tomorrow. How long is the briefing to morrow?

General McConnell. One will be about 45 minutes. It will be about an hour and a half altogether.

Senator Symington. About an hour and a half all told?

General McConnell. Yes, sir.

Senator Symington. If we meet at 2 o'clock tomorrow afternoon, we could answer questions against the next briefing and take that briefing and have questions probably in two and a half hours.

General McConnell. Yes, sir; but those briefings tomorrow, I think, will generate more questions.

Senator Symington. Let's proceed with this briefing and see where we go.

General LeMay. At the instance of your counsel we have broken out of the national intelligence estimates that portion pertaining to the potential of the Soviet long-range air force between now and 1959 since, in your counsel's opinion, this specific information was desired by the committee in a comparison with the potential of the Strategic Air Command during the same period.

General McConnell will discuss this comparison.

TESTIMONY OF MAJ. GEN. JOHN P. McCONNELL, DIRECTOR OF PLANS, SAC

General McConnell. Before I start, with the way these charts are made up, Mr. Chairman and gentlemen, it may give you an idea that they may not be in consonance with other intelligence information which you have received, but they are.

We will guarantee that, that these charts have been checked with the CIA and the national intelligence estimates are reflected in these charts.

They are exactly the same charts. They show in some cases production figures and in some cases figures that are actually on units.

That is the reason they may appear to be different.

Now, as you have seen this morning through our briefing that General Terrill gave, it would appear at this time we are pretty well prepared to cope with the Soviet threat and we are pretty well pre-

pared to retaliate sufficiently to keep him actually from ever laying down the threat.

The purpose of this briefing will be to withdraw from the national intelligence estimates the portion of the Soviet threat which is contained in its long-range air force and compare it to the United States long-range Air Force, the period between now and 1958.

This is a comparison of the total bomber production presently scheduled in the United States in terms of B–47's and B–52's from 1955 up to 1959 and compared with the total bomber production as estimated that the Russians will be producing in terms of Bisons, Bears, and Badgers.

While at this time it is evident we are way ahead of them it is also very evident that in 1958 the total bomber capability of the two forces will be approximately the same in long- and medium-range bombers.

The next chart, however, will show a comparison between the heavy bomber production capability of Russia; I do not say capability, production estimates as given by the intelligence community as against the programed production of the heavy bombers in the United States.

Senator SYMINGTON. Will you put those lights on so we can make notes, please?

I think we can read those charts.

General MCCONNELL. This shows that in accordance with presently programed production schedules of the B–52, and for the Russian Bison and Bear, in 1959 they will have approximately twice the number of heavy bombers that the United States Air Force will have.

Senator SALTONSTALL. Would the chairman permit a question to him?

Senator SYMINGTON. Yes.

Senator SALTONSTALL. Would it not be helpful as this is going on the record and the record is a secret record, to have those little tabulations put on the record so that we could actually read them in the record?

Senator SYMINGTON. I think that is an excellent suggestion. Do you approve, Senator Jackson?

Senator JACKSON. Yes.

Senator SYMINGTON. Senator Duff?

Senator DUFF. Certainly.

Senator SYMINGTON. We might have a summary of each of the charts put in the record in a manner, General LeMay, that your people or the people of the Air Force and the Department of Defense consider would be the most constructive to explain what was said.

In any case, we will follow literally the suggestion of Senator Saltonstall here and put those charts in the record at the appropriate place.

Proceed, please, General.

General MCCONNELL. Yes, sir.

Now the next chart will show the B–52 with its associated jet tanker radius-of-action from various bases in the United States, Portland, Ellsworth, Portsmouth, or Westover actually to the Soviet Union, the blue being with 1 refueling, the red being with 2 refuelings and carrying a 17,000-pound bomb.

In each case the bomber returns to its home base.

Now this chart shows the radius-of-action of the Bison, the type 37 which is the same as our B–52, with 1 refueling and with 2, with a 10,000-pound bomb from certain bases in Russia covering the United

States in the same colored code, from herewith one refueling it will reach here [indicating].

Refueled twice it will reach here [indicating].

From here——

Senator DUFF. May I interrupt there?

Can you identify that in words?

General MCCONNELL. This is the Chukotski Peninsula, this is the Kola Peninsula.

Senator SYMINGTON. The chair would like to deviate at this point and say that inasmuch as several questions of this character have come up, if anybody wants to ask a question strictly for information against the charts, why that will be entirely satisfactory for any member of the committee.

Senator DUFF. As a matter of fact unless you have this in the record it would not show anything.

Senator SYMINGTON. I agree with that.

General MCCONNELL. The Chukotski Peninsula, the Kola Peninsula, and the Moscow area.

From the Chukotski Peninsula, here and here——

Mr. HAMILTON. Better indicate where here and here is.

General MCCONNELL. It covers seven-eighths of the United States with one refueling, and all of the United States twice refueled.

Senator DUFF. Down to Cuba?

General MCCONNELL. Yes; from the Kola Peninsula it covers at least one-third of the United States with one refueling and all except the southern portion of Texas on a twice-refueled mission.

From the Moscow area you cannot quite get into the United States except for the tip of Maine, and covers about the same as it does with one refueling from the Kola Peninsula; in other words about a third of the United States.

Now in each of these instances, the bomber is also returned to its home base in the Soviet territory.

This is the radius of action of the Bear which is their turboprop aircraft with a 10,000-pound bomb load, and it gives you one refueling and no refueling.

With one refueling it can reach from the Chukotski Peninsula clear across the United States.

From the Kola Peninsula with no refueling it can reach over half of the United States.

From the Moscow area with no refueling it just barely touches the United States. With one refueling through from the Chukotski Peninsula it can go clear down into South America and return to its home base.

From the Kola Peninsula it can cover again all of the United States and Central America and return to its home base and from the Moscow area it can cover all of the United States and a portion of Central America and return to its home base. Those are the ranges.

Let us look at the advantage that any one has if he has an intercontinental bomber-tanker team.

Usually people say they have the advantage of range, but there are a lot more advantages than just the advantage of range.

There is the advantage of reduced vulnerability, because of the fact that he can base the bombers then inside of his homeland instead of

having to have them spread out in areas that are more vulnerable to attack around the periphery.

The second one is one of increased speed. That does not mean increased speed in the actual bomber itself.

It means increased speed in being able to lay down an attack.

(Deletion by Department of Defense censor.)

If you had an intercontinental capability composed of a team such as that, then you do not have to redispose your forces and you can attack from where you are normally conducting your training.

Therefore, it is the speed with which you can get your attack off is considerably accelerated. And the last advantage is that it eliminates strategic warning, again for reasons that you do not have to redispose your forces in order to effect the strike. You can strike from where your forces are in training status.

Now I want to go into the combat-airframe production which is again jointly agreed intelligence estimates of the U. S. S. R. versus the United States of between now and 1965, and it is good as far as the prediction by the intelligence community is concerned pertaining to the Soviet production estimates until about the middle of 1959.

After that time, these hatched bars indicate those are the Air Force's estimate of what the production will continue to be in terms of millions of pounds annually as against United States Air Force production.

In each case the shorter line is the Air Force production programed as against the Russian production estimated.

These are for the purpose of maintaining the force which they would have in 1959 in a modern status.

That is the only way we got these production figures. Up until 1959 the intelligence community agrees, so it would appear that they are outproducing us in all types of air frames, I mean in total airframe production capability.

Now their aircraft normally are lighter than ours, so the fact that they outproduce us in airframe capability is not quite a true picture of the total numbers, because the total numbers involved are higher than the ratio between these two would indicate.

Now, this chart is displayed for the purpose of portraying purely the B–52 production agains the Soviet production in the event the B–52 production rates were to go to 20 per month.

Soviet production rates are the same as I showed you a while ago. This is the B–52 production rates on the basis of 17 per month.

This is the planned B–52 production rate of 20 a month, and the red line is the type 37 or Bison production rates of the Soviet Air Force.

But that is not the only type of heavy bomber which they have. They also have the Bear, which, as you saw on the other chart—this then is actually the true picture, which I think that the committee should look at, because it includes both types of heavy bombers against the only type of heavy bomber which we will have at that time.

Senator JACKSON. I want to ask a question right there.

Is it reasonable to assume that the Soviet Strategic Air Command would have fewer targets in the United States than would our Strategic Air Command in the Soviet Union?

General LEMAY. Yes; I think that is a true statement, because we are forced on a smaller number of bases than they are.

Senator JACKSON. They will have more heavy bombers to go after the fewer targets here, than we will to go after the gerater number of targets in the Soviet Union?

General LEMAY. That is correct.

Senator JACKSON. That is all.

General MCCONNELL. While we believe that with the advent of the guided missile some of the requirements which are now met by heavy bomber aircraft are going to be supplanted by it; you heard what General LeMay has already said with regard to it, and I do not think I need to elaborate on it.

Apparently the Soviet are of the same opinion, because they obviously have not started scrapping their bomber aircraft in favor of the guided missile in this time period.

Senator SYMINGTON. Will you put your last chart back on, the one that you had before this one, C–9?

General MCCONNELL. Yes, sir.

Senator SYMINGTON. Have you got a chart that shows Bison-Bear production of that character?

General MCCONNELL. We have a type which shows total airframe Bison-Bear production versus——

Senator SYMINGTON. No; I would like to have that chart. See if you can make up by tomorrow afternoon the same chart as that with the Bear and the Bison on it together.

General LEMAY. In other words, another red curve line higher up.

Senator SYMINGTON. Another red curve or a curve of any color that shows the overall total production of the heavy bombers of the Soviet as against the heavy bomber production of ours as planned today.

Senator JACKSON. Mr. Chairman, could we have a chart tying in with the heavy bomber production the question that I just posed, namely, showing the number of assigned targets of SAC as given by the Joint Chiefs of Staff, and, if you have an estimate, the targets you would conceive the Soviets would have in the United States in order to carry out an effecticve air-atomic destruction of this country.

General LEMAY. That is pretty difficult to do.

I would have to read the Russian commanders' mind.

Senator JACKSON. I know it is a tough one, but I think it is important to get the true picture.

Senator SYMINGTON. Will you get the Bison-Bear chart if possible for tomorrow and then would you do some work on the other chart and if you can have it tomorrow, fine, and if not, will you submit it to the committee as soon as convenient?

Senator JACKSON. Assume that you operate, General, on the premise that you give them, to be safe, equal strategic know-how, with regard to seeking out and destroying targets in this country, as we would have in trying to seek out and destroy targets in the Soviet Union.

Senator SYMINGTON. You say you have a chart, General?

General MCCONNELL. I have a chart which shows airframe production total Bison and Bear against B–52.

Senator SYMINGTON. I understand that, but we would also like to have the other chart tomorrow.

General MCCONNELL. Yes, sir.

That concludes the briefing on that subject, sir.

Senator SYMINGTON. In other words, as I understand it, you are not giving us any relative comparison except that which involves SAC, in this briefing; is that right?

General LEMAY. Yes, sir.

Senator SYMINGTON. Mr. Counsel?
Mr. HAMILTON. I do not have any questions.
Senator SYMINGTON. Senator Jackson?
Senator JACKSON. No.
Senator SYMINGTON. Senator Saltonstall?
Senator SALTONSTALL. No.
Am I correct, General, in saying that this information which you have given us, as General McConnell has stated, has been correlated with the CIA so that the figures that they gave us the other day which were quite extensive are the same as your figures here?
General LEMAY. That is correct; yes, sir.
Senator SALTONSTALL. Your intelligence has been coordinated?
General LEMAY. Yes, sir.
Senator SALTONSTALL. Thank you, Mr. Chairman.
That is all.
Senator SYMINGTON. Senator Duff?
Senator DUFF. General, does this list as projected on the screen include all bombers in all services?
General LEMAY. The chart we gave you showing all of SAC bombers versus the Russian long-range air arm did not include on our side some capability that the Navy has and the capability that our tactical forces have.
It did not include on the Russian side their tactical forces. Their tactical forces generally speaking outnumber our tactical forces about 10 to 1.
Senator DUFF. Don't you think as a matter of fact that we ought to have the whole picture in here irrespective of what it shows?
Senator SYMINGTON. I want to assure you that the purpose of this committee is to have the whole picture.
Now as long as you have brought it up, General LeMay, please give the committee your opinion, based on the war gaming and the conferences you have had, as to what will be the support that you will get, and that the Joint Chiefs believe you will get, in the strategic attack against the Communists' heartland; what will be the support you can count on from the Navy when it is utilized as a strategic atomic force?
General LEMAY. In all the war games that we have carried out, we have of course taken cognizance of the fact that we are not the only ones that are going to be fighting.
There will be an air battle going on in the Far East, there will be an air battle going on in Europe, and probably elsewhere.
The tactical forces will be engaged. If the fleet is at sea, presumably they will engage someplace.
We never are able to plan definitely on the fleet because we don't know where they are going to be.
It all depends on how the war starts and what they have decided to do. The Atlantic Fleet for instance in case of a complete surprise may be in port here in the United States and under those conditions it will take them somewhere between 10 and 14 days to get into action, to get to the target area and get going.
All of the war gaming indicates that the outcome of the tactical battle of the short-range bombers who cannot reach back deep into Russia to get the airplanes that are coming into the United States,

the outcome of that battle has no effect on the United States winning or losing of the overall airpower battle.

Senator JACKSON. Mr. Chairman, if we have the total air atomic capability of the United States, which would include the Navy, then for an appropriate comparison I think we should attempt to have the total air atomic capability of the Soviets, which would include their IL 28 fighter-bombers too. If you could get the total picture, I think it would be well.

Mr. HAMILTON. I understand that was Senator Duff's point.

Senator DUFF. That is right.

Mr. HAMILTON. We certainly shall get for you the facts.

Senator DUFF. We would have to take their capabilities on the same basis.

Senator JACKSON. Air atomic capabilities of both countries in all categories.

Mr. HAMILTON. We will get that so it will be in the record, Senator.

Senator SYMINGTON. We will have a complete and exhaustive analysis of that before these hearings are over.

Now I ask this question.

Has at any time anybody ever attempted at any level in uniform or out of uniform, in the Pentagon Building, has anybody ever attempted to justify not giving you what you felt SAC needed on the grounds that the mission could be accomplished by the Army, or by the Navy, or a foreign air power?

General LEMAY. No, sir; I have never heard that before.

Senator SYMINGTON. Do you report directly to the Joint Chiefs?

General LEMAY. Yes, sir.

Senator SYMINGTON. You present your position to the Joint Chiefs?

General LEMAY. Yes, sir.

Senator SYMINGTON. Therefore if at this stage anybody said that any foreign power or any Army aircraft or any Navy aircraft was a justification for failure to give you an adequate Strategic Air Force, it would be the first time that you had ever heard of it as commander of SAC?

General LEMAY. That is right. The missions of the services are assigned by the Joint Chiefs of Staff and I have this mission and no other service has it assigned.

The Navy has a corollary mission of assisting in strategic bombardment within their capabilities, but it is only a corollary mission.

It is not a primary mission.

Senator SYMINGTON. Nobody has more respect for the Naval Air than I have, and nobody believes more in the importance of the naval mission than I do. But we have seen a picture with respect to our apparent willingness, based on our Intelligence, to let the Communists pass us in heavy quantities in the production of long-range intercontinental bombers. Inasmuch as three-quarters of your striking forces are now tied into medium bombers, and nearly all the rest of your force is a plane that was originally designed in 1940, then the more B–52's you get, the faster you get them, the better for the security of the United States in your opinion? Is that correct?

General LEMAY. I think so; yes, sir.

Senator SYMINGTON. And again I want to be sure.

Over all the years that you have run the Strategic Air Command if anybody brings up as an excuse, or reason for a shortage in SAC,

the capacity of another service, or another country, to do the job, it will be the first time, to your knowledge it has ever been brought up?

General LEMAY. Yes, sir.

Senator SYMINGTON. Thank you, General.

Senator SALTONSTALL. At the same time we have been told, General LeMay, by several responsible persons, to be very frank I can't remember which ones, that the plans of the Army, Navy, and Air Force, in event of a war or in the event of a strike on this country, have been coordinated.

Do you agree with that?

General LEMAY. Yes; we just explained to you how we went about coordinating our part of it with the other services.

I think that is a fair statement that they have been coordinated.

Senator SALTONSTALL. And they are in a better state of coordination today, as shown by those charts that you have given us, than they have been in the years past?

In other words, you are working steadily toward a better coordination?

General LEMAY. Yes, sir.

Senator SYMINGTON. I have never discussed this subject with General LeMay, at least for some years. As I analyze the chart of the Joint Chiefs of Staff is it not true that if there has been any trend toward what another service would do as against the Strategic Air Command, SAC, in an atomic strike against Russia, if there has been any trend with respect to what any other service would do, it has been downward in recent years? Is that a fair analysis of those charts?

General LEMAY. Yes; because one of the things that we are trying to do in the service is to eliminate duplication, so that we save the taxpayer money.

The assignment of missions, roles, and missions by the Joint Chiefs of Staff to the various services was supposed to eliminate that duplication.

The mission of strategic bombing has been assigned to the Air Force and no other service except for the corollary mission that I mentioned that the Navy has.

Senator SYMINGTON. Mr. Counsel, have you any further questions?

Mr. HAMILTON. I have one or two questions some of which were suggested to me. With respect to the study on coordination, reference was made to "specified" and "unified" command several times. I wondered what those two words meant?

General LEMAY. We have commands that operate under the Joint Chiefs of Staff. I think a specified command is SAC, for instance, a specified command.

A unified command is the commander in chief Alaska, commander in chief the Far East.

In other words, he has Air Force, Army, and Navy units assigned to him.

(Discussion off the record.)

Mr. HAMILTON. You mentioned certain conclusions that had been drawn from a number of war games.

I believe it was stated that the conclusions were those that had come from all of the war games that had been studied.

General LeMay. Yes. We took a great number of war games. Some we participated in by ourselves, some we participated in with other commands.

Some the Army were in and some the Navy were in, a great number of them, and we tried to sum them up to show the general conclusions that came out of all of them.

Mr. Hamilton. Am I also right in the impression I have that, when you have your target coordination conferences, they include all branches of the service, Army, Navy, as well as the Air Force?

General LeMay. Yes.

You notice the commands, the commander in chief of the Atlantic for instance, that is all Navy, commander in chief Europe is Army, Navy, and Air represented in that command.

Mr. Hamilton. In connection with the briefing that you were good enough to give us, General Terrill, am I right in the question I have that when you talked about the weight of the bombs beings carried by the B–52's it was 17,000 pounds?

When you talked about the weight being carried by the Bisons and Bears, that was 10,000 pounds?

General LeMay. Let me answer that.

Without getting into naming specified weights for different types of weapons, we were showing you ranges with a definite bomb load, and the figures show bomb load 10,000 up to 40,000 pounds of bombs or bomb load.

Mr. Hamilton. The thing I was wondering is this; is it generally trye that the lighter the bomb load the longer the range?

General LeMay. That is generally true; yes.

Mr. Hamilton. So to the extent that there was a difference in weight, that would be reflected in a difference in range capacity?

General LeMay. Generally speaking you can trade off load for gasoline.

Mr. Hamilton. I think that is all.

Thank you, Mr. Chairman.

Senator Symington. General, thank you very much.

We will meet tomorrow at 2 o'clock and we hope to be through by 5 and then we have the open session on Friday.

(Whereupon, at 4:35 p. m., the committee was adjourned, to reconvene at 2 p. m., Thursday, April 26, 1956.)

STUDY OF AIRPOWER

THURSDAY, APRIL 26, 1956

UNITED STATES SENATE,
SUBCOMMITTEE ON THE AIR FORCE
OF THE COMMITTEE ON ARMED SERVICES,
Washington, D. C.

The subcommittee (consisting of Senators Symington, Jackson, Ervin, Saltonstall, and Duff) met, pursuant to recess, at 2:05 p. m., in room 212 Senate Office Building, Senator Stuart Symington (chairman of the subcommittee) presiding.

Present: Senators Symington, Jackson, Ervin, Saltonstall, and Duff.

Also present: Senator Welker.

Fowler Hamilton, general counsel; Ramsay D. Potts, Jr., associate general counsel; Fred B. Rhodes, assistant to Senator Saltonstall; Edward C. Welsh, assistant to Senator Symington; and Wallace L. Engle, staff member.

Mansfield Sprague, General Counsel, Department of Defense; Brig. Gen. Thomas C. Musgrave, Jr., USAF; Gen. Earle E. Partridge, Commander in Chief, Continental Air Defense Command, USAF; Col. Reade F. Tilley, special assistant to General LeMay; Col. Lewis E. Lyle, Chief, Plans Division, D/Plans, SAC; Col. Alfred J. Hanlon, Chief, Target Analysis Division, D/Int, SAC; Lt. Col. David C. Jones, aide-de-camp to General LeMay; Lt. Col. O. V. Stephenson, Chief, Budget and Accounting, D/Comptroller, SAC; Maj. Robert P. Lukeman, War Plans Branch, D/Plans, SAC; M. Sgt. Henry B. Hurtt, Directorate of Operations, SAC; and S. Sgt. Neil F. Long, Directorate of Operations, SAC.

Senator SYMINGTON. If you are ready, we will start.

General LeMay, will you and your officers and your staff consider yourselves sworn? If any additional witness comes who is not sworn, will you be good enough to notify the Chair, and we will see that he is sworn.

General LEMAY. Yes.

Senator SYMINGTON. Will you proceed?

TESTIMONY OF GEN. CURTIS E. LeMAY, ACCOMPANIED BY MAJ. GEN. JOHN P. McCONNELL, MAJ. GEN. ROBERT TERRILL, AND COL. EDWARD M. NICHOLS—Resumed

General LEMAY. Mr. Chairman, before starting with the day's program, we have the chart which the committee asked for yesterday ready. Would you like to see that first?

Senator SYMINGTON. I think if it is in order with you, Senator Duff, that would be a good idea.

Senator DUFF. All right.

General MCCONNELL. Mr. Chairman, you will remember the chart we showed you yesterday afternoon which compared the Bison production figures and B–52 production figures, if the B–52 were to go to 20 a month, and the B–52 production at 17 a month.

The chairman asked us to bring another chart which would include in this line the total Bison plus Bear production figure that we have in that chart.

Senator SYMINGTON. As long as you have been kind enough to make it, could we take a little longer to look at it?

General MCCONNELL. That is this chart.

Senator SYMINGTON. I get it.

General MCCONNELL. Yes. The other one is the one which you saw yesterday afternoon.

Senator SYMINGTON. Right.

General MCCONNELL. And this is the one which you asked for.

That showed the production figures of the Bison and the Bear as against the B–52 on a 20 per month production base, and 17 per month production base.

Senator SYMINGTON. On this chart am I to understand from this that on the basis of the present plans and programs of the United States, the total number of intercontinental bombers by July 1, 1959, will be less than the estimate of total Soviet production of the Bisons and Bears, even after a stepup to 20 per month. [Deletion by Department of Defense censor.]

So that the total, if we stay at 17 a month peak, if we hit it and stay at it, based on present programing, the Communist intercontinental bomber strength will be just a little over double the strength of the United States; is that correct?

General MCCONNELL. That is correct.

Senator SYMINGTON. Senator Duff, have you any questions?

Senator DUFF. No, sir.

Senator SYMINGTON. Counsel, have you any questions?

Mr. HAMILTON. No, sir.

Senator SYMINGTON. Proceed, please, General.

General LEMAY. Mr. Chairman, as I indicated in my opening remarks yesterday, it was suggested by your counsel that the committee would be interested in the offensive and defensive posture which would be necessary for SAC to achieve in order to more effectively deal with the Soviet surprise attack and be in a position to retaliate against it.

To provide this information, we have developed a concept of an alert force to be attained by the Strategic Air Command at the earliest possible date.

This concept of the alert force has been approved in principle by the Chief of Staff of the Air Force, and certain directives implementing it have already been issued by him.

I think that the information which has been indicated by the committee it desires will be provided in this discussion monitored by Major Lukeman.

TESTIMONY OF MAJ. ROBERT P. LUKEMAN, WAR PLANS BRANCH, D/PLANS, SAC

Major LUKEMAN. This study examines the problem of "How can we best accomplish the SAC mission 1958 and onward?"

We used the question mark referring to the difficult period during which our manned bomber force, which will comprise the major portion of our force, will be required to survive in the same intercontinental environment in which missiles are in the hands of the enemy.

Briefly to review the SAC mission, it is to train and maintain an effective and secure long-range strike force to conduct strategic air warfare; and when we think of our mission, the words "effective" and "secure," as you see further in the next briefing, are the two key words in our vocabulary.

The objective of this SAC mission is merely to attain strength, strength to deter aggression during cold war, and to win the decisive airpower battle in general war should it occur.

The factors that affect the performance of our mission: We start first with the assumption that the enemy will have the initiative, and this, of course, in accordance with our national directives.

We feel war can start in 1 of 2 ways, offensively: Either deliberately, or as a result of miscalculation; deliberately because the Soviet might feel their power position or base of operations were jeopardized or they might feel they might be assured of an easy victory; miscalculation because events rather than decisions, through the medium of accidents, might take over.

In any event, we believe that the enemy decision, should he go to war deliberately, will be based upon an estimate of the cost to him; and we feel that the cost to him is measured in terms of our retaliation.

So we feel, again, that the key to the enemy decision is our relative strength in 1958–65.

We use the word "relative" because our strength as compared to his determines what he has to pay in excess costs as to whatever action he undertakes, and there is no secret that, in the event he felt that he could absorb a certain weight of effort, by comparison to what he would achieve through deciding to take the initiative, he might well decide to do so.

I don't have to dwell on enemy relative strength; you have just seen the charts which cover that, his increasing inventory of jet and intercontinental bombers capable of hitting our bases, capability to develop multimegaton weapons necessary to destroy our bases, and the two new conditions of war starting in 1958, the intercontinental ballistic missile and the intermediate range ballistic missile.

I don't mean to infer an added or more important significance to them than that which General LeMay placed upon them yesterday, but I do feel that they do inject one aspect into aerial warfare that is new.

This shows that new aspect. The enemy threat has evolved through possession of the initiative, the weapons, the vehicles with the range, and to these have been added the new radically changed dimension of time.

This means that in the future our advance warning may not exceed 15 minutes. [Deletion by Department of Defense censor.]

Planning alternatives are sufficiently simple that they need not even be on the chart. We either face this situation and plan for it, or we risk losing the airpower battle and war through the destruction of our force.

Again, I would like to emphasize we are not placing any construction upon missiles other than that given to you by the commander yesterday.

However, as long as they possess missiles, we must plan to have the capability to accomplish our mission with a secure force, in spite of that threat on their part.

The Air Council has recognized the threat to us by the acceptance of the dispersal concept, which was touched upon yesterday, as necessary for preservation of the SAC force.

We feel that the dispersal concept and its acceptance were a great step forward for SAC.

Senator SYMINGTON. Major, what is the Air Council?

General MCCONNELL. I can answer that question, sir, if I may; may I answer the question?

Senator SYMINGTON. Yes.

General MCCONNELL. The Air Council is composed of the Vice Chief of Staff and the Deputy Chiefs of Staff, the Deputy Chiefs of Staff for Personnel and for Intelligence, I mean for Operations, for Research and Development, for Materiel, all of the Deputy Chiefs of Staff, plus the Chairman, who is the Vice Chief of Staff.

It makes its reports and recommendations to the Chief of Staff.

Major LUKEMAN. Dispersal is necessary; it expands the enemy target system, it increases the number of targets that pose a threat to him, and it minimizes the effect of the enemy blow against us.

But, at the same time, dispersal is defensive, it is a passive measure. It does not, by itself, compose a defensive strategy; so that by itself it is not enough to win a war in the face of this threat.

The ideal solution to the problem of this new time element of threat would be to launch the entire SAC force immediately against facilities supporting Soviet airpower, to prevent or minimize followup strikes, and to get on with the missions that were described to you yesterday.

But, like any ideal solution, the requirement to meet it would be impractical. One hundred percent of the SAC force would have to be on a continual alert, and we would have to take the entire force off within minutes of receipt of warning.

The limiting factors that make this an impractical solution have many names. They probably come under the general description of dollars. Some of the names we can apply to the dollars are equipment, personnel, and facilities.

The aircraft industry has limits in its productive capability, and these limits are not only affected by their mechanical ability, but by procurement funding considerations. We cannot start with the assumption we will have unlimited equipment, because national resources probably would not permit that.

As we discussed the past 2 days, we cannot start with the assumption that our personnel resources have no limit. We have problems of funding, of military ceilings, problems in recruiting, and problems in retaining the people we have.

Facilities expressly designed for rapid launching of our force are required if we are to launch the force within this time period that

I have described to you, and these facilities require funding for base development.

There is a limit to the amount that we can devote to such funding, and so these factors establish parameters beyond which we cannot go in our planning.

Senator SYMINGTON. The word "funding," what do you mean by that?

Major LUKEMAN. We mean funds made available through the Air Force to SAC for base construction; and in the case of equipment, through the Air Force to the Air Materiel Command for procurement planning in aircraft and their accessory equipment.

Senator SYMINGTON. Now, Major, you have a heading there, "Limiting Factors—Equipment." When you say "equipment funding," does that mean you have lack of money for aircraft?

General MCCONNELL. May I answer that question?

Senator SYMINGTON. Anybody answer it who can.

General MCCONNELL. You will have to go back, I am afraid, to the chart before that. The chart before that indicated that the ideal solution would be a solution which would permit Strategic Air Command to have on the alert its entire force at one time. And that would mean that it could take the entire force off within minutes of the receipt of warning.

Now, we cannot arrive at that ideal solution. We are physically incapable of arriving at the ideal solution, anyhow.

He is also showing other limiting factors which would prevent us from arriving at the ideal solution, one of which, of course, is——

Senator SYMINGTON. I would like to go back to my original question. You say a limiting factor is funding.

General MCCONNELL. Yes, sir.

Senator SYMINGTON. Does the word "funding" mean lack of funds?

General MCCONNELL. Yes; lack of funds.

Senator SYMINGTON. Thank you.

Major LUKEMAN. To continue, support of the force is also a problem that you face in attempting to solve the problem posed by this threat.

What I mean by this, principally, aside from the obvious requirement for personnel which we discussed, is that when the planner sits down to try to solve this problem and decide what should be the constitution of his alert force, he must decide how many aircraft he can afford to keep on alert.

You find that in the end, you enter a spiral if you don't place limits on your thinking. By that I mean this: Suppose we said that it would be nice if we could keep 75 percent of the SAC force on a continual alert. We then must provide sufficient aircraft to accomplish the flying training necessary to keep this 75 percent of our aircraft strength on continual alert.

This generates a requirement for a greater number of crews than we now possess. These crews must be trained in the air and on the ground, so you need more airplanes.

As you need more planes, you may come up with the conclusion you need more of them on the alert. Whether you come up with that conclusion or not, you find you need more maintenance. You need

more maintenance, you need more maintenance people. More maintenance people, more housing.

And so, an attempt to keep more than a given percentage of the force on alert creates a requirement considerably above what you initially thought about.

There are human factors that limit you in a solution to the alert problem, such as morale and endurance. There is a limit to the amount of time that you can require your people to perform the kind of duties that I will be discussing in just a moment and, of course, tactical limitations, also.

I show some tactical limitations on this next chart.

Our B–52 can strike significant targets nonstop from the United States. For some missions that we might want to run, the B–52 would require refueling. However, our B–47s must be refueled in order to strike from the United States.

The implications, then, are clear to our approach to solving our alert problem. The size of the alert force is dependent upon the size of the entire force, because limiting factors dictate that you cannot exceed a given percentage of your total force on alert. Resources do not permit it.

The size of the tanker force also has an effect upon the size of the bomber alert force. There is no point in keeping a bomber on alert when you don't have the tanker necessary for him to reach the target.

The size of the force determines the feasibility of the strike. You had a discussion of the penetration problem.

(Deletion by Department of Defense censor.)

The size of the force, again, determines the effectiveness of the strike. As General Terrill described to you, the job we are trying to accomplish is to destroy a target system and, in peacetime, to possess the capability of destroying that system and thereby deter.

So the size of the force determines not only the operational feasibility but the effectiveness of the strike; and the effectiveness of the strike determines how well we can do our mission, the deterrent value of our force.

Our conclusions are that SAC must maintain on immediate alert the largest possible percentage of its force.

(Deletion by Department of Defense censor.)

And the portion of the force not dispatched on alert would be preserved and launched similar in method to those that were described to you by General Terrill yesterday.

The significance of SAC possession of an alert capability we believe goes beyond our possession of a retaliatory threat. It will give us the capability to better accomplish our mission in the worst situation, that is, where we must retaliate in spite of this expanding enemy threat which we must face and take cognizance of.

But at the same time, it gives us the greatest potential for victory under other than the worst situation.

(Deletion by Department of Defense censor.)

Possession of an alert force would also bring into being the facilities, mechanics, and procedures necessary for expansion of that force at any time that our national leaders felt this was necessary.

(Deletion by Department of Defense censor.)

All of those things are given to us by the SAC alert force, but most importantly we want to make the Russian planner start all of his

planning with this sentence, "Regardless of what I do, if I initiate, I must accept up to [blank] high-yield weapons." And we feel that if the number we can put in the [blank] is large enough, we will deter.

When we are asked "How much alert does SAC want?", we ask, in turn, "Which side of the alert are you talking?", because we feel that it has two very definite aspects. First, size; and second, readiness.

The size of the force that we feel we must have on alert [deletion by Department of Defense censor] as I point out to you, was based on considerations of operational feasibility and effectiveness of strike.

The size that we require is the size needed to do the job; and our ability [deletion by Department of Defense censor], from the size point of view, is dependent upon manning and upon equipment.

Now, even if we have the manning and equipment, there is the other aspect—how much readiness, in how many minutes or in how many hours must we be required to launch this force? And our answer to that is that we want a degree of readiness sufficient to meet the threat at any given time period.

Now, when missiles enter the picture, the curve of the threat changes radically. The threat based upon our early warning systems, the DEW line and the Atlantic and Pacific extensions, was described to you. [Deletion by Department of Defense censor.]

Immediately that they possess a missile operationally feasible, the threat goes down to something in the order of 15 minutes. At that moment we must have readiness sufficiently available to cope with that 15-minute threat.

Now, this lends itself to time phasing, because the 15-minute threat won't materalize tomorrow, so that we can plan our work toward that time. And our ability to launch the force with the desired degree of readiness depends upon our capability to do so through training and practice, and on military construction programs which will give us the bases we need and the configuration we need to launch this force.

The rest of this discussion will concern these aspects of alert: attaining lert, maintaining it, manning it, scheduling it, and training it.

Subsequent discussions by General McConnell will discuss the details of SAC strike timing, tactics, and geographic deployment of the force.

We use certain assumptions in deciding what SAC requires for alert. These are generally within the "ball park" of what SAC now possesses or is programed to possess.

The deployment of our aircraft would be in accordance with our dispersal concept I mentioned to you. Generally, we should disperse our forces over more bases than we are now doing. [Deletion by Department of Defense censor.]

Our maintenance capability, I would like to mention now.

Flying time under normal operations today, based upon the fact that our maintenance organization should be 95 to 100 percent manned in required specialties, is 2,250 hours of flying time per month. What I mean by that is that the manning documents which were drawn up to decide how many bodies our maintenance organization should be authorized, to support our mission, flyingwise, were based upon the requirement for 2,250 hours per month. So that if our maintenance organization were in fact manned to that level, this is what we could be expected to fly.

The normal maintenance cycle of our jet bombers, we found through experience is approximately 16 hours; that is, from the time the bomber lands until you can safely send him off again into flight, 16 hours of actual maintenance must be performed on that aircraft.

Now, obviously there are some aircraft that require no more than a half hour or 2 hours of maintenance, and there are some that come down with extremely serious radar difficulty which may take days to correct. This is the average, and 16 hours would be 2 normal working days, using an 8-hour shift.

Our crew availability. Approximately 15 percent of our crews are not available at any given time, due to such reasons as leave, sickness, or being on temporary duty at the strategic evaluation group which was spoken about to you.

This chart gives you just a feel for the size of the force we are talking about. I don't think it is important that these figures be remembered. They are based upon a document called FSP–0651, in which we had this number of units authorized for SAC.

[Deletion by Department of Defense censor.]

And obviously this figure would be degraded by ground aborts, and also the figures will be degraded by a number of other things—attrition.

[Deletion by Department of Defense censor.]

Scheme of Operations: Our aircraft will be fully ready to start engines and taxi. [Deletion by Department of Defense censor.]

The aircraft would be parked, nose out, in a taxiout alert type hangar. The design of this hanger is already on paper, not final but on paper, and the people at Wright Field, as well as the people at AIO at SAC are working on it.

Our aircrews would be in a readyroom adjacent to the aircraft. Their meteorological flight plans would be completed for the time period they are on alert. They would have completed visual inspection of the aircraft and the weapons, and they are wearing partial personal equipment. We say "partial" because it would not be practical for them to wear all of it, such as face pieces for pressure suits. Any personal equipment they are not wearing would either have to be within the aircraft or within arm's reach.

The crews could be scheduled in a number of ways to cover these alert shifts. The way we came up with as being the optimum was 24-hour alert shifts for our crews. The crew members will not have to be continually on 10-second alert during this period, and awake. Some of them might be able to sleep, especially on B–52 crews where you had 6 crew members.

In addition, they could be doing useful things, such as planning and briefing their training missions, the missions they would fly upon completion of their alert shifts. They might be accomplishing limited emergency war plan target and mission studies.

Limited ground school, perhaps on a proficiency basis, with study guides and self-administered examinations, and mild recreation.

The alert maintenance crew, the ground crew that maintains the alert aircraft, are living the same type of life as the crew. The facility, the readyroom facility, is designed to accommodate them, too, and they are on alert adjacent to the aircraft 24 hours a day. We do not have a sufficiently large corps of specialists, in radar and other things of that nature, to provide specialists in each alert hangar, but we will have

enough to have 24-hour specialist coverage on an oncall basis, with the specialists being back in the specialist shop.

Our alert facility consists of the alert hangars I mentioned. The design consists of quick-opening doors, with readyrooms being an integral part of the alert hangar design in cold climates; and this alert hangar and the SAC alert package is located near the takeoff end of the runway. We need the most direct taxiways that we can design and build, because aircraft will be taxiing at high speeds, with heavy loads at maximum gross weights and, of course, minimum turns are required for the same purpose; power for aircraft accessories as we need it.

[Deletion by Department of Defense censor.]

Our support people, such as our crash-rescue crews, our messing, our drivers, security, medical personnel, these, too, must be on the type of schedule which will support a 24-hour-a-day, 7-day-a-week alert type of operation in SAC.

I show you this map to give you a feel for the design of the SAC alert facility. This is a representative field, this being the normal part of the airfield here, this being your main takeoff runway; and down at this end of the runway, which will be the takeoff end based upon climatological wind studies, we have the SAC alert package.

This will be the entire package here, the part I show in red being the part required for alert.

[Deletion by Department of Defense censor.]

You see you have alert hangars for your bombers and tankers. Your operationally parked aircraft are parked here. These are aircraft not on alert.

You have a dual-taxiway capability, in order that if one aircraft breaks down it won't hold up the rest, one taxi route being out this way and the other taxi route being this way. You notice the taxiways are built as straight as possible. I have another blownup diagram of the SAC package, including the alert portion of it, and it looks generally like this.

[Deletion by Department of Defense censor.]

Operational aircraft here; squadron operations and other facilities in this general location.

[Deletion by Department of Defense censor.]

This shows takeoff goals which we will aim for in execution of an alert, and I would like to emphasize the word "goal."

Our goal here is based upon the warning time I previously stated and the ability to get airplanes off in that length of time. If you have two runways on all your bases you could handle more airplanes on those bases.

[Deletion by Department of Defense censor.]

Some of the requirements in order to give us this alert capability, I have shown here.

The most vital and overriding requirement is the crew requirement, the requirement for people.

We feel that [deletion by Department of Defense censor] we require a crew-to-aircraft ratio, fully manned, 1.6 crews to 1 aircraft.

Now, that means 72 crews per bomb wing, 32 crews per air refueling squadron.

All of these crews must be combat-ready crews, because only combat-ready crews, by definition, are capable of being launched on this alert strike.

So we will require combat-ready crew replacement from a central agency, such as the Air Training Command, and these replacements must be in place before we ever let our combat-ready people go elsewhere, such as on a change of station.

Internally, we have got to think about minimizing the additional duties that we place upon our crew personnel, and we have got realine our ground training due to the fact we will be making extreme demands on the time of these people.

Streamlined crew procedures means we will do everything within our power to minimize the time that the crew has to spend in preparing for flight. So that the crew need not report hours in advance of the flight, but as soon prior to takeoff time as it is possible.

And we have some other things within SAC that we are looking at to try to further increase the efficiency of alert operations.

The flying requirements to support this concept amount to 216 sorties per unit per month for training. We have 72 crews to support, as you will recall, 60 of them being available at any one time, 15 percent not being available. And, based upon 3 sorties per month being devoted to training at a minimum, we require a total of 256 sorties per wing per month, 256 aircraft flights amounting to about 2,000 hours of flying time in each medium bomb wing or heavy bomb wing.

This amounts to 39 hours per aircraft assigned per month, but, since all assigned aircraft are not always available, it amounts to 45 hours per aircraft per month, that is, per available aircraft, or a sortie rate per day in any bomb wing of 8½ sorties.

The figures on the right show the corresponding information for air refueling squadrons.

There are many ways that we can schedule alert crews, as I told you.

[Deletion by Department of Defense censor.]

A sample crew schedule in B–47 unit would look something like this. This is just one way to schedule it, and the way we are thinking of at the present time. We realize there are many other ways we can do it.

This, if you read this as you would a calendar, represents any one crew's schedule for an entire month, or any one team's, because teams rotate schedules weekly. If you read it vertically, it shows what the wing will do on any given day.

[Deletion by Department of Defense censor.]

I show this mainly for the purpose of giving you an indication of why our main requirement is for people.

The team here, as you will note, I told you that each crew would be required to fly an average of about 3 training sorties per month, 3 missions per month. This means about 1 a week, counting the fact that they will occasionally abort. So any average crew would fly once during this 1-week period.

But this still gives them a weekly workweek of approximately 65 hours, 60 to 65 hours, if he flies once. If the crew is behind in its flying schedule because one member of it has been in the hospital or on extended emergency leave, the workweek of that crew will probably be closer to 75 hours.

The only inducement that we can hold out in compensation for this on a 7-day week is that the average crew will get about 3 full days off per week. Unfortunately, these days off are not Saturday and Sunday, because this 7-day schedule is an example of what we would do if we were flying, working and on alert during weekends as well as weekdays.

[Deletion by Department of Defense censor.]

We also experimented with a 5-day workweek, because this is the one we would prefer, and this is the general schedule for a 5-day workweek with only alert being performed on Saturday and Sunday.

[Deletion by Department of Defense censor.]

A look at the maintenance and supply support aspects of alert. Our maintenance people have made detailed studies of what we will require to do this job. I won't go into all of the things they think they need, but there are 1 or 2 things I think I should point out to you.

First and most important, manning in required specialties of a high order. I say 90 to 98 percent. We would like it to be as high as possible. This is another way of saying we need people, and we need trained people in our required specialties.

Our aircraft will be on alert for a period of 7 days, that is, we will pull the aircraft into the alert hangar and leave it parked there for a period of 7 days.

[Deletion by Department of Defense censor.]

We require a high order of logistical support, not only in aircraft parts and engines, but in weapons.

[Deletion by Department of Defense censor.]

Our maintenance people have worked out detailed schedules showing how we can do this job. Again, I won't go through them with you in detail.

[Deletion by Department of Defense censor.]

This is what I meant when I said earlier that the availability of equipment determines how many you can keep on alert, as well as the people.

Comparison of what we have been talking about, and present-day operation:

In other words, our present capability versus what we must go to in alert.

To go on the alert we must have more combat-ready crews in the units than are now available.

[Deletion by Department of Defense censor.]

Our crew-to-aircraft ratio, as I told you, must be 1.6 crews at a minimum, combat-ready, per wing, 1.6 crews per aircraft per wing. It now varies around 0.94 crews per aircraft.

This may go up a few decimal points or down, on any given day. The 1 day I pulled the figure out, it was 0.94 crews per aircraft.

Average flying time we must cut down. We now fly them 32 hours per month in training combat-ready crews. We must cut this down now to 24, because of support requirements; which means we will have to devise ways to make our every hour of flying training more productive.

Our average flying time per aircraft per month now is about 31 hours. This will have to be increased, as I explained to you, to 45 hours. There is no great problem except the logistic aspect, having

the parts and the engines necessary to fly each aircraft more hours every month.

Aircraft flying time per unit per month now averages something above 1,440 hours, and we will have to go close to 2,000 hours to support the alert concept.

Our average sortie requirement at the present time is about 211 training and other sorties per month per wing. As I explained to you, our requirements will be at least 256.

Now we fly about 217 sorties per month. It will have to be in excess of that figure to support alert.

Most important, our effective manning now—this is not body manning but effective manning—runs about 80 percent. It will have to be considerably higher than that to support alert, and this manning I am speaking of is not only in crew strength, but it must also be in all of our support specialties.

There are some other considerations concerned with alert. I won't dwell on them too long, but obviously [deleation by Department of Defense censor] detection and communications mechanisms on a national scale must be designed to provide the maximum amout of useful warning to the crew on the airfield where they need it.

This is a problem which is receiving attention throughout the Air Force and the Defense Establishment.

We also would like to make it clear that we have not presented final solutions in this discussion, and that operational experience and practice will be necessary to answer many of the problems which we know will be posed by alert operations.

Personnel considerations. The chairman has called the attention of General LeMay's staff to at least one magazine article concerning our personnel problems, and we are aware that during this period, 1958 and onward, there will be problems.

When we are requiring people to work 60 to 70 hours a week during a period when, happily, labor and industry will be enjoying many benefits—and, as I say, happily so—our problems of recruiting and retainability will certainly not be any more simple than they are today; so that we think that the area of compensation and other areas that will be discussed tomorrow in the personnel field, are ones that must receive further thought. And, last, if we are to have an alert capability by 1958 or 1960, we must start our programing for military construction now, because of the lead time required.

If we get it in the 1957 budget in the northern area where you have 3-year lead time for base construction, then we would have the SAC alert package by 1960.

In the South, with a 2-year lead time, in the 1958 budget or we don't have it by 1960.

So that early action, especially for the northern bases, is required.

That concludes my presentation.

Senator SYMINGTON. Thank you, Major.

General LeMay, you have another briefing this afternoon?

General LEMAY. Yes, sir.

Senator SYMINGTON. What is the length?

General MCCONNELL. Twenty-five minutes.

Senator SYMINGTON. I would suggest we ask questions against this briefing, the one we just had, because it is easier to remember.

Mr. Counsel, will you proceed?

Mr. HAMILTON. I have just a few questions.

General, I will address the questions to you, and you indicate the questions to your colleague.

When was the alert force concept determined, at what time?

General LEMAY. We have been thinking about it for some time. We firmed it up in a form we could present to the air staff last fall, and I think right after the first of the year they approved the concept.

Mr. HAMILTON. I see.

How many planes do you have on the alert now?

General LEMAY. Under this concept, none.

[Deletion by Department of Defense censor.]

Mr. HAMILTON. When the major referred to the alert concept that he said was now in the plans, I wonder whether he meant that this was now in the plans in the sense that the Air Council had approved it, or whether he meant it was now the plans, in the sense that it was in the budget for fiscal year 1957.

Senator JACKSON. Air Council?

Mr. HAMILTON. Air Council.

Senator SYMINGTON. They used the words "Air Council."

Mr. HAMILTON. I think it is pretty much the same as the air staff.

Senator JACKSON. I am amazed. I had never heard of the Air Council.

Senator SYMINGTON. It is in the record now. Would you, for the Senator's benefit, describe it again?

General MCCONNELL. The Air Council is differentiated from the air staff. What we call the air staff is intelligence and training and so forth. I said the air staff is generally considered to be the entire air staff, particularly that part which has to do with operations, training, intelligence, and items of that nature, planning.

The Air Council is composed of the Vice Chief of Staff, by name General White at the present time, and the Deputy Chiefs of Staff—the Deputy Chief of Staff for Personnel, the Deputy Chiefs of Staff for Development, for Materiel, for Operations, and—I have forgotten—I think there is one other. I have forgotten his exact position.

That Council is headed by the Vice Chief of Staff as Chairman, and it reports and is responsible to the Chief of Staff, General Twining.

Senator JACKSON. This is, in effect, a subcommittee of the air staff?

General MCCONNELL. Not exactly.

General LEMAY. Not exactly.

Senator JACKSON. All of them are air staff members; are they not?

General LEMAY. That is right.

Senator JACKSON. So all of the air staff is not on the Air Council.

General LEMAY. No. They may all work with the Air Council on particular problems.

Senator JACKSON. But I meant on the Council, the specific members of the Council.

Senator SYMINGTON. General, you tell us exactly what it is as you see it.

General LEMAY. The Air Council is a tool of the Chief of the Air Force, used to make sure that all major decisions that he has to make

have been looked at and all the recommendations that have come to him have been looked at by the senior members of his staff.

I said "major decisions." For instance, if a request comes in to the air staff that some tactical unit wants to send airplane No. so-and-so to a depot several weeks ahead of time, that goes to the Air Council. Some member of the air staff handles it below, but all major decisions are made at the Air Council level to make sure that the Chief of Staff has the personal advice of his senior members of the staff.

Senator Symington.

Senator SYMINGTON. Proceed, Mr. Counsel.

Mr. HAMILTON. Thank you, sir.

Returning to my question, General, against that additional information, I was inquiring whether, when the major used the word or the phrase that the alert concept had been accepted, so to speak, and plans had been made for it, whether he meant it had been accepted and plans had been made for it by the air staff only, or whether he meant also that in addition, to the extent practicable, the requirements to get to the alert position had been put in the budget for fiscal year 1957.

General LEMAY. I cannot answer that question completely. The air staff, through the Air Council, has approved this concept. That approval means that they are taking the necessary action to get the things, material things, we need to do the job, and the people to do it.

So we can only assume that all of these things are going forward. We do not know specifically—when I say "we," the Strategic Air Command does not know specifically—that everything required is in the 1957 budget, because I have not received a copy of that budget as yet.

Mr. HAMILTON. In other words, that question should be addressed to someone in the Air Council, the chief of the Air Council, presumably.

General LEMAY. Right.

Mr. HAMILTON. So you do not know whether it is all in, or whether it isn't, as I understand it. But you do know they have approved it.

General LEMAY. They have approved the principle.

Mr. HAMILTON. Yes. Thank you, sir.

In connection with one of the charts in which there was a statement that one of the objectives of the alert program was to be sure that the Russian staff planners would first have to meet the question, if they want to do anything, they would have to accept so many atomic bombs, I wonder if in that regard you would feel, even if they got an intercontinental ballistic missile some significant time before we did, that you could still, with manned aircraft, force them to ask that same question, even though they, for the sake of argument, had the ICBM and we didn't?

General LEMAY. If we can get this alert concept worked out to a point where we can operate under it with a high degree of efficiency, then I think that even though the Russians have the intercontinental missile, that they will still have to consider that question: Will we accept this number of bombs?

Mr. HAMILTON. Could you cut the 75-hour workweek for the crews that the alert concept seems to call for, even if you got 1.6 crews per aircraft, if you had more crews, General, or a higher ratio of crews?

General LEMAY. If we had more crews, then we would have to

have more airplanes, because it generates the requirement for more flying time to train them, and it is a vicious circle.

Mr. HAMILTON. Thank you, sir.

That exhausts my time, Mr. Chairman.

Senator SYMINGTON. Senator Jackson, as long as you were a little late, would it be all right if some questions were asked by the other Senators?

Senator JACKSON. Surely.

Senator SYMINGTON. Senator Saltonstall?

Senator SALTONSTALL. General LeMay, may I ask a couple of general questions first?

Could you describe a little more accurately, to help me, what do you mean by "flyaway kit"?

General LEMAY. A flyaway kit consists of the technical supplies, spare parts, required to fly a squadron of airplanes for 1 month or about a hundred flying hours.

Senator SALTONSTALL. Approximately how many tons is that, just for my information?

General LEMAY. It varies from time to time. For instance, if you get a new airplane right out of the factory door, and fly it, say, a hundred hours, certain parts are going to wear out, fail, and have to be replaced. So you have those parts in your flyaway kit.

That same airplane, after you have had it in service and it has flown, say, 2,000 hours, and you fly it another hundred from 2,000 to 2,100, an entirely new set of parts wears out, fails, and must be replaced. That is your flyaway kit.

So you can see we are constantly changing the composition of the flyaway kits.

Senator SALTONSTALL. That is simply a term, then, that is used for the specific—a general term that is used and has to be applied specifically in each case?

General LEMAY. That is correct. The flyaway kit is the supplies to fly that particular squadron of airplanes for a hundred hours.

Senator SALTONSTALL. Now, another general question that I would like to ask is this: Does the Air Council keep any records?

General LEMAY. I can't answer that one.

General MCCONNELL. I am sure they do. I am sure they must keep minutes or something. But I don't know whether the Air Council does or not.

General LEMAY. We will have to find that out, sir.

Senator SALTONSTALL. I do not want them. I just wondered whether there was sufficient formality so that records were kept, or whether it just met when there was a question that might come up that was deemed of importance.

Senator SYMINGTON. General Musgrave, will you find out and submit for the record at this point what the facts are?

(The information referred to is as follows:)

The records kept are as follows:

(*a*) Advisory memoranda from the Council to the Chief of Staff prepared as a result of Council considerations. These memoranda contain only recommendations to the Chief of Staff and are not Air Force decisions.

(*b*) Copies of Chief of Staff directives to the Air Staff which follow as a result of Council advice to him. These memoranda do not necessarily reflect the thinking of the Council.

(c) Miscellaneous interoffice memoranda pertaining to scheduling Council meetings.

The office of origin or of primary interest of the Air Force Council presentations is the repository for background information on any particular subject.

It should be noted that the Air Force Council is not a decision-making body, but is merely an advisory group to the Chief of Staff.

Senator SALTONSTALL. Another general question, General LeMay: Your Strategic Air Command is responsible directly to the Joint Chiefs of Staff. General Twining is just one member of that Joint Chiefs of Staff.

Could you describe very briefly your relations with General Twining? I mean by that, if you put in a material requirement, does that have to be passed on by General Twining, or does it go directly to the Joint Chiefs of Staff?

General LEMAY. General Twining is the executive agent of the Joint Chiefs of Staff for the Strategic Air Command. Each one of the Joint Chiefs of Staff commanders operates through an executive agent. For instance, General Gruenther in Europe operates through the Army.

Senator SALTONSTALL. I understand that. But you are the only one that is under direct orders from the JCS, are you not?

General LEMAY. Oh, no.

Senator SALTONSTALL. I mean, you do not take your orders from General Twining.

General LEMAY. Some orders, pertaining to administration and supply, and things of that sort.

Senator SALTONSTALL. That is what I wanted to know.

General LEMAY. Operational orders come through——

Senator SALTONSTALL. The Joint Chiefs of Staff?

General LEMAY (continuing). The Joint Chiefs of Staff, but they are usually passed through General Twining.

Senator SALTONSTALL. So that General Twining is the head of your supplies, the head of your administrative responsibilities; but you take your operational orders directly from the Joint Chiefs of Staff?

General LEMAY. Yes; the Joint Chiefs of Staff are not an operating agency.

Senator SALTONSTALL. I understand that.

General LEMAY. They issue instructions through one of the services who are operating agencies.

Senator SALTONSTALL. Yes; and, as we said yesterday, they give you a mission, and it is up to you to carry out that mission.

General LEMAY. That is correct.

Senator SALTONSTALL. How near were these charts which you showed us an actuality, a program in actuality?

General LEMAY. On the alert concept?

Senator SALTONSTALL. Yes.

General LEMAY. The only thing I can add to what has already been said is that they are approved. I presume that the necessary funding actions to bring them about are in the budget, but I haven't seen the latest version of the budget, and I cannot answer whether that is true or not.

Senator SALTONSTALL. So that from a practical point of view, at the moment your Strategic Air Command, as you said, I think, is in a state of readiness as opposed to a state of alert.

General LeMay. That is correct.

Senator Saltonstall. On chart D–25, you showed that the ideal you wanted was 1.6 crew members to 1 aircraft; is that correct?

General Le May. That is correct.

Senator Saltonstall. And at the present time you had an effective manpower of 80 percent. This would be on chart D–33. And if you had that 1.6, then you would be up somewhere between 90 and 98 percent; is that correct?

General LeMay. No, sir; that is not correct.

Senator Saltonstall. That is what I wanted to find out.

General LeMay. Let me first define effective manpower. We are manned, bodywise, as we say it, if we have a man to fill the position vacancy. We are effectively manned if that vacancy is filled with a man that is qualified to do the job, if he is fully trained in his specialty to carry out his work.

Now, if we are manned to 1.6 crews per airplane, the assumption is that all of them would not be effective, because some of them will not be combat-ready. A few of them are coming in, they train a little bit in a unit, then we consider them combat-ready if they have completed the training program; and while that is going on, in one of our old crews somebody gets sick and has to be relieved from flying duty, or someone is transferred to a staff position, or they leave active duty and return to civilian life, you are short again, and you have to bring another one in.

So that is the difference between "manning" and "effectively manning." You are manned if the body is there; you are effectively manned if he is qualified to do his job.

Senator Saltonstall. And you determine that effective manning, to play safe, is 1.6 per 1 ship?

General LeMay. No. That is the number of crews per airplane. Manning and effective manning applies not only to the crews, but the maintenance people, support people, and everyone else in the organization.

Senator Saltonstall. Yes.

I read rather hastily last night an article in the Reader's Digest of this month, regarding the Strategic Air Force. Have you seen that article?

General LeMay. Yes, sir; I have read advance proofs of that article.

Senator Saltonstall. Well, now, they made a statement—I do not have it in front of me, and I am not sure of my accuracy—that a very substantial percentage of your planes were on the ground because of lack of maintenance crews. Is that so?

General LeMay. I don't think the article said that, exactly.

Senator Saltonstall. Well, I don't say that I repeated it quite accurately.

Senator Symington. Would the Senator yield at that point?

I was told that about the Tactical Air Command. I agree with Senator Saltonstall, in that my impression was the article broadened it. That was the one mistake I believe there may have been in the article.

General LeMay. I thought the Senator was talking about my command.

Senator SALTONSTALL. I was.

Senator SYMINGTON. If my impression is right, the article did imply——

General LEMAY. It did say something about the Tactical Air——

Senator SYMINGTON. They said 30 percent on the ground.

General LEMAY. As I understand it, it said the Tactical Air Command had some airplanes that were grounded because of lack of maintenance. That is correct. They are in storage. They are not making any effort to fly them.

That is not true of my command. However, I do have airplanes on the ground for maintenance, and the quality of the maintenance is down below what I would like to have because of the lack of technically trained people.

Senator SYMINGTON. I thank the Senator for bringing that up.

Senator SALTONSTALL. Yesterday in one of those charts you showed, I cannot remember the exact figures, on certain sorties or training trips you were in two groups. You were 100 percent successful in one, or they all went and came back. And another one, there was one, I think you called it an abortion.

General LEMAY. Yes.

Senator SALTONSTALL. There was one ship that aborted; and, otherwise, it was successful.

Now, when you say that, does that mean that you have sufficient ships so that those trips are satisfactorily carried out, but you still have a number of ships on the ground for maintenance or being held for maintenance, perhaps ineffective maintenance; is that true? That is a tough question.

General LEMAY. I am not so sure I understand what you want.

Senator SYMINGTON. We will have to wait for the next round.

Senator SALTONSTALL. I would appreciate it if he could answer. It is the last one.

Senator SYMINGTON. He said he was not sure he understood the question.

Senator JACKSON. I ask that the time be waived.

Senator SYMINGTON. Please ask the question——

General LEMAY. Let me try to answer it this way:

We schedule our flying, our normal training, by months. In other words, we try to plan a month's work ahead so that we can tell in advance that such-and-such an airplane should fly on this day, and such-and-such a crew should fly on this day. So we plan our workload so as not to have all of our airplanes on the ground for maintenance at one time, having flown them all at one time. So we try to schedule our workload.

We have exercises and maneuvers, and so forth, which require more than a daily average of flight to maintain training.

We schedule a certain number based on many factors: Our maintenance situation, not getting off balance in case an attack comes right after, while they are in the air or just after they land, and things of that sort.

When we schedule so many, we schedule that number because we feel that we can spare that number from the force and not get ourselves off balance.

The number we schedule we never expect to get in the air, because mechanical appliances, mechanical gadgets, are not perfect. We also have some failures.

The abort rate is the number of failures you have.

Now, when we schedule, say, 20 airplanes for such a mission and 20 crews for it, and only 18 get off, those 2 crews which failed to get off miss that training exercise. They must be scheduled at some later date so that all the crews get an overall training.

Senator SALTONSTALL. I see.

General LEMAY. Does that answer your question?

Senator SALTONSTALL. Yes; I think it does.

In other words, the ones that get off are the ones that were shown on that chart yesterday. That does not mean to say they are all getting off that were actually supposed to go, on that chart.

General LEMAY. That is correct.

Senator SALTONSTALL. Thank you very much.

Thank you, Mr. Chairman.

Senator SYMINGTON. Thank you.

Senator Duff?

Senator DUFF. Referring to the chart D–15, what conditions will prevail which will cause that time limitation to be so small? [Deletion by Department of Defense censor.]

General LEMAY. We expect at some time in the future the Russians will have an intercontinental missile. [Deletion by Department of Defense censor.]

Senator DUFF. With the presight of a missile of that character, it would indicate that it would have to have reasonable accuracy in order to pinpoint on a small base; would it not?

General LEMAY. Yes. The accuracy of such a missile is one of the most pressing problems that we are working on now.

Senator DUFF. Yes. And as far as anybody knows, there is not presently any such accuracy pretended for any missiles in being, as far as you know; is there?

General LEMAY. Well, sir, the missile program is going forward. The accuracy of the first models coming out will be something less than that desired, but I expect that succeeding models will improve accuracy, and I personally think that eventually we will have a useful weapon in this system.

Senator DUFF. But the immediate problem, as I understand it, from your point of view, is for more planes rather than contemplation of the necessity of confronting a situation of this missile problem.

General LEMAY. Yes, sir. I believe that at the present time the manned bomber force is the only weapon we have for long-range delivery. But even when the intercontinental ballistic missile comes out, I believe that the manned bomber will be a more efficient delivery system than the first missiles.

The next model missiles will be more efficient, and I expect eventually that some portion of the bomber force will be augmented, or supplanted even, by the missile.

Senator DUFF. One other question, General.

Am I correct in thinking, from the testimony, that even with the planes that you now have, you do not have sufficient manpower in the way of crews and technicians to keep them all available at one time?

General LEMAY. No, sir; we do not.

Senator DUFF. What is the percentage of deficiency in that particular?

General LEMAY. I didn't hear you, sir.

Senator DUFF. I say, how far are you short in manpower, both in crews and in technicians, to man the planes that you now have available?

General LEMAY. If you will remember the charts, we are manned, crewwise, about 94 percent. In other words, 0.94 crew per 1 airplane.

We are about 91 percent manned in manpower, overall, including all of the maintenance people and support people. We are on the average around 80 percent manned effectively. That is, I say, the average, because in some of the technical skills we are not manned anywhere near 80 percent; some of them are down 50 percent.

Senator DUFF. So that manpower is almost as critical a problem as hardware in the overall situation?

General LEMAY. That is true, Senator.

Senator DUFF. That is all I wanted to ask.

Senator SYMINGTON. Senator Ervin, Senator Jackson said it would be all right if I cut in here, because he was late, and I would like to have a couple of these charts shown; and then, if it will meet with your approval, proceed with you.

Will you please show chart D–11?

While we are waiting for that chart, General LeMay, you said at one point yesterday, as I understood it, that you would tell us later on the number of B–52's that you felt was necessary for the mission.

General LEMAY. Yes, sir.

Senator SYMINGTON. Are you prepared to do that now?

General LEMAY. I still think you should see the next briefing by General McConnell before we answer that question.

Senator SYMINGTON. Well, would you mind telling us now, and telling us again later?

General LEMAY. No, sir. I would be very happy to.

Senator SYMINGTON. How many do you think we need?

General LEMAY. You understand, of course, this is a very difficult question to answer.

Senator SYMINGTON. I understand that.

General LEMAY. The main object of the Air Force in the past has been to maintain a deterrent force, because I think we all understand that if we get into a war we all lose. So we have been trying to maintain a deterrent force.

A deterrent force is one that is large enough and efficient enough that no matter what the enemy force does, either offensively or defensively, he still will receive a quantity of bombs or explosive force that is more than he is willing to accept. Therefore, he never starts a war.

Senator SYMINGTON. Please do me a favor. I can see you want to develop this thought to the point where I am going to lose my entire 10 minutes.

General LEMAY. No, sir.

Senator SYMINGTON. Therefore, I will accept your original idea, and we will wait for this until the final briefing, because you would be happier; and the more I hear, the more I would be happy.

Now, have we got chart D–11 there? [Laughter.]

You have here a procurement funding on this chart, Major, and you have funding for base development and funding for military ceilings.

As I understood this briefing, you lacked funds for base development, for military ceilings, and for airplanes; is that correct?

Major LUKEMAN. Sir——

General LEMAY. No; that is not correct.

Major LUKEMAN. I will explain these things.

Senator SYMINGTON. Let General LeMay answer that. Clear me up, because I thought once you said "Yes," and once you said "No," General McConnell.

General LEMAY. The purpose of this briefing was to try to show you what the alert concept was, and all the things we had to take into consideration to bring it about. And some of the limiting factors in bringing it about are listed on this particular chart.

You have to consider the economical feasibility of it; and funding for bases, equipment, and people certainly is important, and one of the limiting factors.

Senator SYMINGTON. I see.

General LEMAY. If there is not money, then you can't do it.

Senator SYMINGTON. I see; that is a theoretical application to a theoretical problem.

General LEMAY. Well, not exactly theoretical, because it is an actual problem that we have. It is an actual problem, and this is our solution, and the Air Staff has approved the solution.

Senator SYMINGTON. I understand.

Now, I will skip to charts D–17 and D–18. Let's keep D–31, because it happens I have a question to ask on D–31, as long as you have it up there. Let's keep D–31 there.

It was stated, as I understood it, in the briefing that equipment, personnel, and facilities were limited by industry. What limitations are there on industry that large enough Air Force contracts would not solve?

General LEMAY. I don't remember that.

Senator SYMINGTON. I do not remember that, either. That is a staff question.

Mr. WELSH. It is on the chart.

Senator SYMINGTON. What chart was it on? Do you remember?

General LEMAY. I think what he is talking about, if our maintenance requirements got so high in equipment, it might tax industry. I don't know any limitation that this plan puts on industry.

Senator SYMINGTON. I will skip that at the moment, if I may, and I would like chart D–33. That is the chart I was interested in the most.

Here are comparisons—this is the chart, Senator Jackson, I was hoping you and Senator Ervin would look it.

As I get it, you have there—would you mind going over this chart again yourself, General? I would like to understand what this is.

General LEMAY. Yes, sir.

This shows the comparison of resources that we have now, compared to what we will have to have when we fully implement this alert concept that we have been talking about.

76922—56—pt. 2——10

As I have already said, to go on the alert we must have more combat-ready crews in the units than are no available. [Deletion by Department of Defense censor.]

We have now a ratio of 0.94 crews, on the average, per assigned airplane. We must have 1.6.

Senator SYMINGTON. I want to interrupt there. Why have you got only 0.94, if we need 1.6?

General LEMAY. We have been manned under a manning document approved by the Air Staff, and up until this alert concept, our manning authorization averaged out around one crew per airplane; there was a little variation. There was one crew per airplane.

Senator SYMINGTON. Have you had a limitation with respect to personnel placed on the Strategic Air Force?

General LEMAY. Certainly, we have our manning document the same as all the rest of the Air Force.

Senator SYMINTON. I understand that; and that manning document does not give you enough people to reach what you should have, as you see it?

General LEMAY. The present manning document does not give enough for this alert concept, but that has been approved now, and new manning documents will come out which will give us 1.6.

When that was approved by the Air Staff, they automatically said, "You are going to get 1.6 crews per airplane."

Senator SYMINGTON. When do you expect 1.6?

General LEMAY. We hope to reach that by 1958.

Senator SYMINGTON. All right.

Now, let me shift back to chart D–17. On that chart you have on the right, there, the KC–135 tanker; is that right?

General LEMAY. Yes, sir.

Senator SYMINGTON. As I understand the briefing yesterday, if you have that tanker—because of speed and altitude, et al., it is a more efficient tanker than the KC–97?

General LEMAY. That is correct.

Senator SYMINGTON. So from the standpoint of what would be the best for the Strategic Air Force, the more KC–135 tankers you have as against KC–97's, the more efficient your Air Force would be.

General LEMAY. That is a true statement.

Senator SYMINGTON. Is that right?

General LEMAY. That is true.

Senator SYMINGTON. Do you know the schedule on the KC–135 as planned?

I have it here, and I want to know if anybody objects to this schedule, because I would like the record to show it.

The schedule, as I understand it, falls considerably short of meeting what you consider to be the requirements of a combat-ready force. [Deletion by Department of Defense censor.]

Is there anybody who disputes those figures? I doubt it, because we got them from the Department of Defense.

General LEMAY. That is correct.

Senator SYMINGTON. Is that correct?

General LEMAY. I think that is a correct schedule.

[Deletion by Department of Defense censor.]

Senator SYMINGTON. Now, one final question here, if I may.

On chart D–31, if you could go back to that chart.

The maintenance and operation, General Bogart testified before the House Subcommittee of the Military Affairs Committee that about 335 million—I think that was the figure, and would like to change it for the record if wrong—anyway, it was hundreds of millions of dollars lopped off maintenance and operations.

I would like to ask you this question, General: Are your problems in this field due to lack of funds incident to maintenance and operations?

General LEMAY. We had a shortage of maintenance and operation funds in the 1956 budget to the extent of about $36 million. Part of them were made up, however, by the Air staff when we reclaimed.

I do not think that our growth in combat capability was retarded by lack of maintenance and operation funds. However, normal base maintenance, painting the buildings, and things of that sort, were generally deferred, so those things were piling up on us and will have to be done eventually. That must be put in the 1957 budget, I believe.

Senator SYMINGTON. Are you satisfied with the amount of personnel in maintenance and operations that you have at this time, and their training?

General LEMAY. The number of people in maintenance and operation?

Senator SYMINGTON. Yes. I mean skilled mechanics, for example.

General LEMAY. No; not the number of skilled mechanics; no, sir. They are far below what we require.

Senator SYMINGTON. But you would consider that a personnel problem and not maintenance and operation?

General LEMAY. Yes, sir.

Senator SYMINGTON. My time is up.

Senator Jackson?

Senator JACKSON. First of all, I have a little statement I want to make in connection with the questions I submitted to the Department of Defense.

The answers have been received and turned over to counsel.

Senator SYMINGTON. That is correct.

Senator JACKSON. I would like to ask Mr. Sprague if he would supply the committee with the answers to the same questions as given last summer. If he will do that, it would just save my going over to the other committee files and getting them.

That is a reasonable request, I think.

Mr. SPRAGUE. Yes, sir.

Senator JACKSON. So we will know what changes have taken place since last July.

I understand, Mr. Sprague, in reading the answers over hurriedly, that there have been some changes in the estimates in connection with the interrogatories I have submitted.

Mr. SPRAGUE. Yes, sir; there have.

Senator JACKSON. That is all on that, Mr. Chairman.

At the appropriate time, I would like both the interrogatories from last July and the answers, together with the interrogatories submitted today with the answers to be placed or read into the record.

Senator SYMINGTON. Without objection, that will be done.

Mr. SPRAGUE. May I say, Senator, that fundamentally, the only changes in the answers relate to up-to-date intelligence information.

Senator JACKSON. Yes, but it is an estimate—your answers do involve intelligence information, but I notice there have been some changes in those estimates.

Mr. SPRAGUE. That is correct.

Senator JACKSON. Naturally, intelligence changes all along.

Mr. Chairman, I had a question that I will be able to get to in a little bit. I wanted to ask General LeMay, as soon as I get the information from our staff of the Armed Services Committee, whether the amount we now have before us for authorization for new SAC bases will be adequate for the planned aircraft production, assuming that new aircraft you are going to get will be adequate.

I will get the information shortly and we will have those figures.

First, in that connection, General, are you satisfied with the present programing of new bases for the planes that you will get from procurement in the next 2 or 3 years? There is a formula worked out, as I understand it.

The goal they are working on now is to take it from 2 wings to a base, to 1 base for each wing. Do I understand that correctly?

General LEMAY. Yes.

Senator JACKSON. Do you think that ratio is satisfactory? Let me put it this way: What was your request?

General LEMAY. We are embarked now on a 137-wing program, which called for a certain number of wings for airplanes and, naturally, the bases to support them and keep them.

Generally speaking, that base program has been behind the rest of the program. In other words, the airplanes come out of the factory, and the people are trained, the units are formed, and they are ready to go, before the base is ready to accept them. And that has given us a considerable amount of trouble.

That has forced us to jam up more than the plan called for.

Now, when it comes down to what you are going to put on a base, in other words, what number of bases do we want for the size force that we are going to have, I don't know what the answer is.

I can only say this: that as the Russian capability increases, we get more security by dispersing our forces. However, how far we can disperse depends on the quality and the number of people that I have allocated to me to do the job.

Right now, I can't disperse any beyond the plans, because of the limit on technical people.

Senator JACKSON. If you could solve your personnel problem, for example, you could afford to have more bases; I mean that is one of the real headaches?

General LEMAY. Yes. We could disperse to more bases and still make the airplanes fly.

Senator JACKSON. Your administrative overhead goes up as you disperse, naturally, because if you concentrate on a few bases, you can cut out some people by concentrating functions.

On the other hand, as the Soviet capability increases, prudence dictates you should not have all your eggs in one basket.

General LEMAY. That is true. I said we should disperse as their capability increases.

Senator JACKSON. Yes. And that problem is constantly under review. But do you feel that, knowing what the present production

rate is with this last increase of B–52's, the present program of one wing to a base is satisfactory?

General LeMay. Right now, yes. I wouldn't want to disperse any further than that, because I can't see the people in the picture to fly the airplanes properly if we disperse any further.

Senator Jackson. Did I understand that sufficient authority has been granted by proper authority to carry out this alert plan as soon as these other things mentioned on the chart can be implemented?

General LeMay. Yes. The air staff has approved the plan.

Now, the plan cannot go into effect until the equipment and bases and things are provided and put there.

Senator Jackson. The concept has been approved?

General LeMay. The concept has been approved.

Senator Jackson. The problem is to get the various things needed to implement it.

I am a little bit confused on one point. SAC operates under the Joint Chiefs. The basic decisions as to the role and mission of SAC are made by the Joint Chiefs; are they not?

General LeMay. That is right.

Senator Jackson. Now, in view of the tight control held over the delivery of atomic weapons, at what point do the Joint Chiefs get out of the picture and turn the decisions over to the Air Force on these various matters? Do they empower the Air Force to work out a plan on alert? I will be specific. Supposing they decide that a certain number of SAC delivery systems will be able to carry out not only the nonnuclear but the nucleartask, as well, and that is a certain number will be loaded on the ready line. Can the Air Council proceed to implement such a thing?

General LeMay. Generally speaking, the Joint Chiefs of Staff give a job to one of their commanders, and they go about carrying it out. Now they evolve the plans; and by and large the plans are then approved by the Joint Chiefs.

Senator Jackson. Yes.

Then the Air Council works out the details in conjunction with SAC, in a cooperative way, but they make the implementation?

General LeMay. The plans to carry out my mission, my staff and I work out and send them for approval to the Joint Chiefs of Staff through General Twining as the executive agent.

[Deletion by Department of Defense censor.]

Senator Symington. Judge Ervin?

Senator Ervin. No questions.

Senator Symington. No questions.

Before we go back around the table again, I think we had better have the final briefing. Therefore, will you proceed with that, General?

General LeMay. In response to the suggestion of your counsel that the committee would desire a comparison of the Soviet long-range air force capabilities vis-a-vis those of the Strategic Air Command, both present and projected, we developed a staff exercise in the form of a war game, using the forces and facilities which are anticipated by intelligence to be available to the Soviet long-range air force and those which are programed to be available to the Strategic Air Command as of July 1960.

General Terrill has already presented our current capabilities, as you will remember, in the form of a typical war game which currently could be effective.

Before developing this information for the committee, I think it is necessary for me to comment briefly as to the conclusions which might be arrived at as a result of any given set of conditions pertaining to a war game.

The conclusions of any war game are directly affected by the assumptions which are made prior to the development of the game itself. If you change the assumptions, you get another set of conclusions.

I think it is necessary for the committee to understand this, because otherwise the committee might be under the impression that the exercise which we are about to show you in order to impart the information which you desire, is the only comparison of capabilities which could be made for the time period indicated.

This, of course, is not true. It is a comparison of capability expressed through the mechanics of the single war gaming exercise.

If we were to introduce into the exercise different assumptions and develop the exercise along different lines, we would arrive at other specific results.

However, I believe that the general results arrived at under any realistic assumptions based upon our own programing and intelligence as to the enemy's capabilities, would be compatible with the results and conclusions which we have developed in this exercise.

I will repeat, however, that I think it is essential the committee understand this is a method of comparing capabilities, and not necessarily the only method; and that this is a war game and not the war game, any more than the plan which General Terrill gave you setting forth our current capabilities is the plan of attack. That plan of attack was a plan of attack.

Now, again, the information which we will give to the committee during the development of this exercise is of a most sensitive nature; and, therefore, I recommend to the committee that it also not be made a matter of record.

General McConnell will present the information which I understand was desired by the committee, by means of the development of the staff exercise.

Senator SYMINGTON. According to the request of General LeMay, the record at this point will show we went off the record.

(Off the record.)

Senator SYMINGTON. I would like to go back on the record, if we may, and I would like to rephrase the question or restate the question.

General LeMay, based on the record and on the off-the-record, inasmuch as we believe this country will never initiate a surprise attack and destroy millions of people in a strategic atomic attack, and inasmuch as both the administration and the Congress emphasize the importance of strategic deterrents, the ability to get up off the ground and destroy the possible enemy, what do you think we need in the way of equipment, as soon as we can get it, we will say, because what we order now we will not get in quantity until some years from now? What do you think we need in the way of equipment in order to protect the United States with our strategic deterrent?

General LeMay. Mr. Chairman, I ask your indulgence, because some of the members of the committee have not had the air background that you have, and the answer is going to be rather long.

Senator Symington. Well, you take all the time you want. It is perhaps the most important question in the free world today.

General LeMay. And I cannot give you an exact figure, but I can give you some conception of what I think the requirement——

Senator Symington. I would not ask you to give an exact figure, but I would ask you to give a figure and say that it is a guesstimate or your best estimate. That is what the committee wants, is your best estimate.

General LeMay. As you know, the Air Force has been trying to provide a deterrent force for the country, one that will prevent a war from happening.

You all remember at the briefing, the definition of "deterrent force."

Now, if we could find out what the number of bombs were that the enemy would consider unacceptable to him, then we could war-game the problem out and arrive at a definite figure.

However, it is impossible to determine what that number of bombs is. Therefore, some time ago we took the next best thing. You all remember the target annexes that we have, the target lists that we have furnished by the Joint Chiefs of Staff.

We can only assume that we might, under the worst conditions, have to destroy all of those targets. So, some 2½ years ago we took the then existing target list and war-gamed out, with what we thought both sides would have, a campaign, and came up with an answer of what we thought we needed to win that campaign at that time.

[Deletion by Department of Defense censor.] We then recommended to the Air Staff that we immediately initiate a program to produce that size force. That force was considerably larger than now programed.

Now, this study was 2½ years ago. Since that time, intelligence estimates have changed.

[Deletion by Department of Defense censor.]

General LeMay. I might add that this target system I was talking about was a target system we projected out to 1965.

[Deletion by Department of Defense censor.]

Now, since that time, intelligence estimates have changed, and of course many other factors have changed, too. We are in the process now of trying to war-game out again some such study. What the answer is going to be, I do not yet know, but I think it is reasonable to assume it will be a greater number than that.

Senator Symington. How many more, in your opinion?

General LeMay. Possibly 30 percent more. It is in very round numbers, however.

Senator Symington. Well, 30 percent more.

General LeMay. I am not too interested at the present time in recommending to the Air Staff a specific number again at that time. What I am more interested in is in getting the production rate stepped up now, because this end figure cannot be met for a number of years yet, and that gives us plenty of time to arrive at the end number required; and these war games are really long-drawn-out affairs when

you fight every battle out in detail, in any number of ways that you might think up that it might happen. It takes a long time.

So the final number is not so important to have now as it is to have a general feeling of what it is going to be, which I think we have, and then getting started on that program, and determining the number later on.

Does that answer your question?

Senator SYMINGTON. I do not want to take too much of the committee's time. But I want to be sure I understand your answer. [Deletion by Department of Defense censor.]

I would like to ask this question, and then yield to counsel to go back to the rules:

You have in your Air Force today, which is commonly acknowledged to be the most important weapon the free world has, you have in operation how many B–36's?

General LEMAY. About 300.

Senator SYMINGTON. An airplane originally designed in 1940, before we got into World War II; is that correct?

General LEMAY. The original design was laid down then; yes, sir.

Senator SYMINGTON. You have how many B–47's?

General LEMAY. We have [deletion by Department of Defense censor] wings of 45 each.

Senator SYMINGTON. From the standpoint of national security, based on the briefings we have had from you here and in Omaha, it is a fair statement, is it not, that if you could replace every one of those B–36's as soon as possible with B–52's, it would mean, as each airplane was replaced, a more effective Strategic Air Force?

General LEMAY. It would produce a more effective force; yes, sir.

Senator SYMINGTON. Thank you. Senator Saltonstall, I violated the committee rules on time and so I would like to yield to you at this point.

Senator SALTONSTALL. I would just like to ask General LeMay a question off the record.

Senator SYMINGTON. Off the record.

(Off the record.)

Senator SALTONSTALL. General LeMay, I think you have said this before, but I would just like to have it clear in my mind. You have been talking about a buildup of personnel, buildup of bases, and buildup of planes. If you had complete freedom to choose the priorities of those, how would you list those three necessities?

General LEMAY. I think I mentioned before during the hearing, Senator, that if I were given a blank check now to increase the combat capability of the command, I would do something about people first.

Senator SALTONSTALL. Yes.

General LEMAY. The next thing I would do is improve the base situation, because the lead time is generally longer there than at any place else; and then, third, I would do something about the airplane equipment.

Senator SALTONSTALL. That is what I thought you said.

Thank you, Mr. Chairman.

Senator SYMINGTON. Senator Duff?

Senator DUFF. I just wanted to ask one question, General.

If you are furnished all the planes that you recommend, and if that total number of planes did not act as a deterrent to the Russians,

and they still made a surprise attack on us, with our possessing the recommended number of planes, what, in your opinion, would be the result?

General LeMay. I think the results of the last recommendation that I turned in was that we would win. In other words, if something happened that did not deter him, he miscalculated.

Senator Duff. We would still win, irrespective——

General LeMay. We thought that force would enable us to win the airpower battle.

Senator Duff. Irrespective of the character of the surprise?

General LeMay. Yes.

Senator Duff. That is all I wanted to ask.

Senator Symington. Mr. Counsel?

General LeMay. Remember, that was based on the intelligence estimates of the size of force that we thought he was going to have at that time, 2½ years ago.

Senator Duff. Yes, sir; that is based on all the information we have had, giving him the optimum of what we estimate he may have?

General LeMay. Yes.

Mr. Hamilton. Mr. Chairman, may I ask a question?

Senator Symington. Mr. Counsel.

Mr. Hamilton. General LeMay, please indicate if you think this answer ought to be off the record and it will be.

I just wondered if you could describe in a little bit more detail how elaborate the work is in connection with war games. Can you reach the results of these briefly, or does it take a long time for analysis?

General LeMay. It takes a long time to do.

The first thing you have to do is to outline your assumptions that you are going to play under; and then you have to establish the ground rules—in other words, what effect are electronic countermeasures going to have on fighter interceptions? All those details have to be ironed out and ground into probabilities.

Remember, on the chart yesterday we showed all those probabilities of 1 bomber coming in to attack on airdrome, and 1 fighter going up to intercept it. All the factors are considered as to the probability of that happening and then multiplying them out, and the figure on the chart was 11.

In other words, there was an 11 percent probability of shooting down that bomber.

Then the crude way of doing it would be to put 11 pieces of paper in a hat with "yes," and 89 with "no," and draw 1 out, and see whether that bomber was shot down or not.

Actually, it is done by machine, but you can see the war-gaming is a very elaborate thing; especially if you want to examine every different way that you might solve a particular problem which might come up.

For instance, there are any number of ways that one airplane can attack an airdrome. There are any number of ways that the Air Defense Command might try to stop it.

If you have to war-game each and every one of them out, you can see that it takes a lot of time; and we have to use these calculating machines, electronic brains, as much as possible, and it still takes a long time.

Mr. HAMILTON. How long did it take, General, in the case of the one you mentioned, approximately?

General MCCONNELL. This one took 4 months.

Mr. HAMILTON. To analyze the data?

General MCCONNELL. This one took 4 months.

Mr. HAMILTON. You were very careful, General, to point out that the result might very well turn on assumptions.

General LEMAY. That is true. In this one it took 4 months, and we just made one set of assumptions that we thought was reasonable, and ran it through.

It would have taken much longer—of course, we didn't have all the use of all the machinery we would have liked to have had in this one, but if we had made another set of assumptions, we would have had to war-game that out and probably come up with a different set of answers.

But I think it would have been in the same general area.

Mr. HAMILTON. You think it would have been in the same general area of result.

Is there a better way of arriving at the kind of analysis for this kind of questions?

General LEMAY. I don't know of any better way.

Mr. HAMILTON. Is this one which is characteristically used by military men?

General LEMAY. This is a common practice of all commanders in the military, to solve their problems, war-gaming; it is going on constantly, all the time.

Mr. HAMILTON. Thank you, General.

I have no more questions, Mr. Chairman.

Senator SYMINGTON. General LeMay, I have a question at this point.

It is this: If the present programs including planes, programs for training people, base programs, and so forth continue here—and the present comparable programs in Russia continue, that is their programs as you have received them from Central Intelligence, at what point, at what date do you think the Communists, with a sudden surprise attack, will be able to destroy the United States?

General LEMAY. I could get you a better answer if we had 4 months to war-game this. However, let me answer it this way:

If those programs that you mentioned from Intelligence are correct, then sometime in 1958–59 the total number of bombers in the Strategic Air Command are going to be roughly equal to theirs.

However, the indications are that the real long-range bombers, the ones capable of taking off from their home bases on a complete surprise, will be little over twice what we have, so the advantage will be with the Russians.

At that particular time, the relative strengths of the two will be fairly close together.

Now, whether the Russians would attack then, or not, depends upon his military estimate of the situation, and his war-gaming, as to what would happen and what we would be able to put down on him at that time; and if that were acceptable to him—I don't know what the outcome of that would be.

However, the only thing I can say is that from 1958 on, he is stronger in long-range airpower than we are, and it naturally follows that if he is stronger, he may feel that he should attack.

Senator SYMINGTON. As I remember it, when I asked this question some time back you felt that now, if everything broke in his favor, using the equipment he has in a sudden surprise attack, wisely handled by the air commanders, it might be possible for them to destroy the United States now; is that correct?

General LEMAY. Yes. If everything went in his favor, and we made all the mistakes possible to make, and we were caught completely by surprise on the ground—I might add, I don't think this is possible to happen—but if it did happen, we only have thirty-some bases, and I think that they could all be hit; and in that case, we would have practically nothing left to do any retaliating with.

Senator SYMINGTON. Now, as I understood it, you felt by the middle of 1958 that they might destroy the United States, if they handled an attack wisely against us?

General LEMAY. No; I think I pointed out that in 1958 they were going to be stronger, and from then on getting stronger.

Senator SYMINGTON. Yes.

General LEMAY. And that the deterrent force would then transfer to Russia from the United States.

Senator SYMINGTON. Let me ask my question again. In what year, at what time, if the present programs go along, ours, vis-a-vis the Communists', in what year do you think they will be in a position, if they hit us, to destroy us? We will accept it as a guess from the man who has the most right to guess.

General LEMAY. I don't like to guess on those things, but if you insist, I will come up with a guess.

You noticed on the war-gaming, the staff exercise, we gave you what happened in 1960 with a surprise attack; we lost definitely with that number. So that is definite; 1960, he can do it with a complete surprise attack.

Now, the problem is to back off to where you think that same thing will happen. I pointed out that in 1958, we would probably be equal. So somewhere between those two, possibly, is the answer, say 1959.

Senator SYMINGTON. All right.

General LEMAY. That is a guess.

Senator SYMINGTON. One other question.

One major thing I have gotten out of these briefings is the importance of the tanker situation. Based on the briefings you have given this committee for 2 days, the number of tankers is a vital figure with respect to your strength, is it not?

General LEMAY. Well, an increase of tankers will give you an increase of capability of getting bombs on the target quickly, yes.

Senator SYMINGTON. Tankers are vital to the effectiveness of your Air Force; is that correct?

General LEMAY. That is correct.

Senator SYMINGTON. And you need a certain amount of tankers in ratio to your bombers; right?

General LEMAY. Right.

Senator SYMINGTON. And what is the ratio you think you should have?

General LeMay. You are talking about the whole force now? Are you talking about a combination of KC–97's and 135's, or all 135's, or a combination of them both?

Senator Symington. Let's take the year 1958. In the year 1958, you will have a certain number of B–47's and a certain number of B–52's. Will you have any B–36's left in 1958?

General LeMay. [Deletion by Department of Defense censor.] We will have some left.

Senator Symington. Let's say 1959, then. Based on the Air Force you will have then and the number of wings of B–47's you will have, how many tankers should you have?

General LeMay. If we are going to assume that we operate entirely intercontinentally, then we ought to have a 1-for-1 ratio.

Senator Symington. 1-for-1?

General LeMay. 1-for-1. That would be the ideal.

Senator Symington. Well, assume that we have foreign bases as planned today; then what should be our ratio?

General LeMay. If we have foreign bases and we assume that we would be willing to take the risk of having some airplanes exposed over there, then we could put a portion of the force over there which could be operated without tankers, and it could be reduced.

That has been the practical solution to date, and the reason we don't have a 1-to-1 ratio.

Senator Symington. How many tankers do you have today in the Strategic Air Force?

[Deletion by Department of Defense censor.]

Senator Symington. To run your Air Force today the way you would like to; is that enough?

General LeMay. It is not the ideal solution; no. We could increase our combat capability if we had more.

Senator Symington. How many more?

General LeMay. Up to the 1-for-1 ratio that I spoke of.

Senator Symington. How many airplanes have you got in the SAC today, combat airplanes?

[Deletion by Department of Defense censor.]

General LeMay. We recently made a study. If we put the 135's out there instead of putting 97's in there, because they are phasing out of the picture and we are now going into the 135's——

Senator Symington. In other words, the more KC–135's you get, the more effective your Air Force would be, as against the KC–97's?

General LeMay. Yes, sir; and the study indicated that you get more from the 135 tankers than you could from any other single factor.

Senator Symington. So the final question: The planned program of B–52 production as against the planned program of tanker production is something that does not support your position with respect to the tankers; does it?

General LeMay. Well, it is less than the ideal; yes. However, all military forces are compromises in some respect.

Senator Symington. If you are making 4 B–52's, as you are, a month, 5 in April, and you say you need considerably more than what has been programed ultimately, you already have some compromise with the ideal, haven't you?

[Deletion by Department of Defense censor.]

General LEMAY. That is correct. The tanker program is behind the B–52 program.

Senator SYMINGTON. And, therefore, if you haven't enough tankers even to support this much-reduced B–52 program, what you are doing is compromising with a compromise; is that correct?

General LEMAY. Yes; that is correct.

Senator SYMINGTON. I just want to get the facts on the table.

Senator Saltonstall, if it is convenient, I think we ought to have the Senators stay, and perhaps Mr. Sprague and Mr. Hamilton; and discuss tomorrow's hearing, if it is all right with you.

Senator SALTONSTALL. Certainly.

(Whereupon, at 5:10 p. m.; the subcommittee recessed, to reconvene in open session at 10 a. m., Friday, April 27, 1956.)

STUDY OF AIRPOWER

WEDNESDAY, MAY 2, 1956

UNITED STATES SENATE,
SUBCOMMITTEE ON THE AIR FORCE,
OF THE COMMITTEE ON ARMED SERVICES,
Washington, D. C.

The subcommittee (consisting of Senators Symington, Jackson, Ervin, Saltonstall, and Duff) met, pursuant to recess, at 2:10 p. m., in room 318, Senate Office Building, Senator Stuart Symington (chairman of the subcommittee) presiding.

Present: Senators Symington (presiding), Jackson, Ervin, Saltonstall, and Duff.

Also present: Senators Malone, Welker, and Goldwater.

Fowler Hamilton, general counsel; Ramsay D. Potts, Jr., associate general counsel; Fred B. Rhodes, assistant to Senator Saltonstall; Edward C. Welsh, assistant to Senator Symington; Wallace L. Engle and Ronald Friedenberg, staff members.

Brig. Gen. Thomas C. Musgrave, Jr., USAF; Brig. Gen. John S. Hardy, USAF; Col, Reade F. Tilley, special assistant to General LeMay; Lt. Col. Donald S. Bussey, OSCS Operations, Department of Army; Jack L. Stempler, Assistant General Counsel, Department of Defense; Clarke A. Morgan, OSD Security; Barnard S. Bogdanovitz, OSD Security; and Capt. S. S. Searcy, Assistant Director, Program Analysis Group, United States Navy.

Senator SYMINGTON. The Chair is glad to vouch for Captain Searcy. He was introduced to me by the general counsel, Mr. Sprague.

General, is there any Q clearance testimony you are going to present today?

General LEMAY. Not in the written questions.

Senator SYMINGTON. Colonel, the Chair will assume the responsibility for your staying today. Will you get this clearance situation cleared up by the first of the week?

Colonel BUSSEY. Yes, sir.

Mr. HAMILTON. Mr. Stempler is here.

Mr. STEMPLER. I have the necessary clearance.

Mr. HAMILTON. You can identify the colonel?

Mr. STEMPLER. Yes.

Senator SYMINGTON. General LeMay, the Chair will assume the clearance of the two gentlemen in question.

Mr. Counsel, for the information of the Chair and possibly the rest of the committee, as I understand it, these questions were questions submitted in the open hearing; but it was decided that they would have to be answered on a classified basis. Is that correct?

Mr. HAMILTON. Yes, sir. I think I might state for the record that the questions that are now going to be put to General LeMay

were a part of a longer list of questions originally transmitted to him, and the part with which we dealt in the open hearing were those questions that we were informed were questions and answers that were suitable for an open hearing and the questions with which we are now dealing were the remainder of the list originally submitted. As to these questions, we were informed they should be asked and answered in closed hearing.

That is in accord with your understanding, isn't it, General?

General LEMAY. Yes.

Senator SYMINGTON. Let the record show that Senator Malone is with us, that he asked if he could be here this afternoon, that the Chair agreed to his presence subject to the approval of the ranking minority member, that the ranking minority member agreed, and therefore, Senator Malone, we are honored to have you with us.

Senator MALONE. Thank you.

TESTIMONY OF GEN. CURTIS E. LeMAY, COMMANDER IN CHIEF, SAC; ACCOMPANIED BY MAJ. GEN. JOHN P. McCONNELL, DIRECTOR OF PLANS, SAC

Senator SYMINGTON. Mr. Counsel, will you proceed with the questioning?

Mr. HAMILTON. General LeMay, you say "a substantial portion of enemy bombers would get through."

What percentage would you consider a substantial portion?

General LEMAY. We are constantly making studies of what our attrition might be to our own forces in attacks against the Russian defense system. The only thing we have to go on is what has happened in the past and an educated guess at the efficiency of modern defenses that we estimate they have and will have in the future, plus increasing improvements in the offense.

As for the past, our attrition against the enemy in World War II amounted to about 2 percent. Our attrition against the Communists in Korea amounted to less than 1 percent. Even assuming a tremendous increase in air defense efficiency over the offensive capability, we cannot see this figure going much beyond 30 percent attrition.

While we are not capable of giving an exact figure, for planning purposes throughout the Air Force we have felt justified in using the figure of from 25 to 30 percent maximum. It is reasonable to give them credit for doing as well as we can.

Mr. HAMILTON. How many planes are there in a wing?

General LEMAY. I have previously answered this question for B–36, B–47, and F–84 wings. We intend to put 45 B–52's in a wing.

[Deletion by Department of Defense censor.]

Mr. HAMILTON. How many B–52's is it estimated will be accepted by the Air Force?

General LEMAY. Except for unanticipated difficulties, such as the failure of equipment which made it impossible for the Air Force to accept all of those produced in the past few months, the number accepted should lag only slightly behind the number produced. [Deletion by Department of Defense censor.]

Mr. HAMILTON. This airplane, the F–84, is becoming obsolescent. What airplane is planned to replace it, and when will the latter be available, in operational units?

General LEMAY. The present program calls for the F–101 to replace two wings of F–84F's. [Deletion by Department of Defense censor.]

Mr. HAMILTON. Is it correct that the change in the internal composition of the Strategic Air Force is that we now plan 45 bombers—intercontinental bombers—in a wing instead of 30?

General LEMAY. Yes. The Chief of Staff and the Secretary of the Air Force have approved increasing the aircraft assigned to B–52 wings from 30 to 45.

Mr. HAMILTON. If present United States and Soviet plans continue, will there not come a time when, if this country is attacked, SAC will not be able to carry out its mission?

General LEMAY. Our ability to carry out our mission depends on the relative strength and effectiveness of the Strategic Air Command and the Soviet long-range air force. I already testified that under current intelligence estimates and approved plans and programs the Soviet long-range air force will be relatively stronger than Strategic Air Command by 1960 at the latest.

Under these conditions we may not be able to carry out our mission at that time.

Mr. HAMILTON. Did not your briefing demonstrate this could happen not later than 1960 and possibly sooner?

[Deletion by Department of Defense censor.]

General LEMAY. Yes, approximately under our present programs and if our estimate as to their combined production is accurate.

Mr. HAMILTON. Your testimony shows that the K–135 jet tanker creates a far more efficient strategic Air Force than the current obsolescent KC–97 conventional tanker.

Why, therefore, are we ordering so very few KC–135's and receiving so very few KC–135's?

General LEMAY. The KC–135 tanker program got a late start. Its production lags behind the B–52 production by 18 months at the outset. We are now programed to get KC–135 tankers in a ratio of 2 to 3 against B–52's.

This is short, in my opinion, of the ideal ratio which should be 1 to 1. We have received no KC–135's to date. [Deletion by Department of Defense censor.]

The number on order are commensurate with the capabilities of the assembly line.

The early stages of the KC–135 production are geared to the capacity of the line to reach a planned peak of 20 per month.

Mr. HAMILTON. What ratio of tankers to bombers do you consider would be the most desirable, for maximum effectiveness?

General LEMAY. For the heavy force the ratio should be 1 to 1. For the medium force, if supported by KC–97 tankers, the ratio should be 1 to 1. If KC–135's could be available for support of the medium force, then the ratio could be 2 to 3.

Mr. HAMILTON. Based on present schedule, how far short of that desired ratio will SAC be?

General LEMAY. We will be considerably short.

[Deletion by Department of Defense censor.]

76922—56—pt. 2——11

Mr. HAMILTON. You testified that if present plans and programs are not changed and if our intelligence estimates of Russian air power are correct, the United States long-range Air Force will be weaker than the Russian long-range air force by 1958–60.

The view is sometimes expressed by nonmilitary people that even if our long-range Air Force becomes weaker than the Russians, our country would not be imperiled because modern weapons are so devastating not even the Russians would dare to start a war because of the damage our weaker Air Force could impose upon them before the Russians won the war.

What is your opinion on this view?

General LEMAY. It is true in theory that a smaller force could still present a deterrent effect, but I do not believe the theory holds for force levels which are obtainable in the time period under discussion.

Certainly there is a number of high-yield weapons which the Soviets would not be willing to accept even in exchange for so-called victory.

What this unacceptable number is I am not in a position to say. If this unacceptable number could be delivered by a weaker force after a surprise attack and the Soviets knew it could and would be delivered, such a force even though weaker could deter him from starting a war.

If present plans and programs, as I understand them, are unchanged and our estimates of Russian air power are correct, I think there is grave doubt that the Strategic Air Command would present an effective deterrence in that time period.

Mr. HAMILTON. Then here is the next question, General——

Senator SYMINGTON. Let the record show, at this point, that Senator Goldwater has entered the committee room.

Senator, this is an executive session. The committee decided that any Senator who would like to come into an executive session, we would be honored to have. We welcome you here with us, especially as you were such an outstanding member of the Air Force in your day.

Senator GOLDWATER. Thank you very much.

Mr. HAMILTON. Turning now, General, to question No. 21, will you please furnish to the committee either by oral testimony or, if you prefer, by written statement for the record, a description of changes that must be made in our present plans and programs and the times when such changes must be started if we are to have assurance that our long-range Air Force will not become weaker than that of Russia by 1958–60.

General LEMAY. In the time available to me I cannot give you an oral statement or a written statement.

If the committee so desires, I can within 15 days prepare a comprehensive statement on the subject.

Of course this will be a classified document.

Mr. HAMILTON. Mr. Chairman, if the committee has no objections, I would like to make that request of General LeMay.

Senator SYMINGTON. Has the committee any objections?

Without objection, it is requested of you, General, that you render the written statement that you referred to.

Senator JACKSON. Mr. Chairman, a point of clarification.

I would assume that it would include the complete package, not just the requirements for planes but the supporting elements, bases, and equipment personnel.

General LeMay. And it will be also my personal opinion. It will not go through the Air Staff.

Senator Jackson. Right, direct to the committee, at our request.

Senator Saltonstall. Mr. Chairman, do I understand that such a statement by General LeMay will be confined to the Strategic Air Command?

General LeMay. That is my understanding.

Mr. Hamilton. As I understand it, General, it will be a statement in terms of resources?

General LeMay. Yes; my requirements and resources as I see them, and I presume only for the time period we have had under discussion.

Mr. Hamilton. Yes, sir; that is right.

Senator Jackson. Let's put it for a specified period, so that we can have the capability of carrying it out. Some of it may overlap a little. You have to put these things in in advance in order to get them in time.

Mr. Hamilton. The question, Senator, is cast in the form of what changes must be started, in General LeMay's view, if we are to have a deterrent force by 1958–60.

Senator Saltonstall. Mr. Chairman, will that include an estimate of costs by General LeMay?

General LeMay. I can give you my ideas of the cost, but I am in combat command. While I am running a businesslike operation there and I have a comptroller set up and I estimate by and large the cost of my own activities, procurement and construction of bases and things of that sort are not in my field generally, and any estimate as to costs that I might have would be pretty shaky.

I would prefer not to give costs because you can get more accurate information from the Comptroller of the Air Staff.

Senator Jackson. After all, it is my understanding you would have to submit it as a practical matter. It goes through the Corps of Engineers; they build the bases for you, generally speaking, not in all areas, but in many areas.

Senator Symington. Would the Senator yield for a minute, particularly as the distinguished Senator is going to chair the committee after I leave. I must leave in a few minutes to catch the train to Paducah, Ky.

Senator Jackson. Then we will revert to Senator Saltonstall's question when we complete the written testimony.

Senator Symington. May we do that if it is in order?

[Deletion by Department of Defense censor.]

Senator Symington. Normally the Chair has asked the counsel to proceed, then the other members of the committee; but inasmuch as I will have to leave shortly, I ask the indulgence of the committee for me to ask questions first at this time.

Senator Malone, is it your intention to ask any questions?

Senator Malone. No.

Senator Symington. Senator Goldwater?

Senator Goldwater. No.

Senator Symington. I wanted that cleared up because we would be glad to put it up to the committee if you would like to do it.

Before asking a couple of questions here, in your testimony, General LeMay, you, as I remember it, state that, based on what has been given you in the way of national intelligence, the discrepancy

between the number of additional bombers that the Communists will have as against the United States will increase in the next few years instead of decrease, is that right?

General LEMAY. I am not sure I understand.

Senator SYMINGTON. As of today they have more modern intercontinental bombers than we have. As of tomorrow that advantage in their favor will increase instead of decrease?

General LEMAY. Long-range bombers; yes.

Senator SYMINGTON. Long-range bombers. I noticed a press conference of Mr. Wilson's yesterday in which he said:

> Based on the best information I have, the Russians are currently building long-range bombers at a higher rate than we are, but such production in both countries is small and just getting underway.

It is true, is it not, that from the standpoint of production we are on schedule?

General LEMAY. Yes, sir.

Senator SYMINGTON. From the standpoint of acceptances we are behind schedule?

General LEMAY. Yes.

Senator SYMINGTON. Is that correct?

General LEMAY. Yes.

Senator SYMINGTON. The schedule for bombers in January, February, and March of the B–52's was 4 a month, and the schedule I believe for April was 5. To the best of your knowledge, is that right?

General LEMAY. To the best of my knowledge, that is correct.

Senator SYMINGTON. Mr. Wilson then proceeded to say, in his press conference, that he would not join in General LeMay's prediction that the United States will be inferior to Russia in long-range striking power within 2 to 4 years, based on present programs, because too many assumptions must be made and he lacks accurate data as to future Red plans.

Now the information that was given us with respect to the growing discrepancy in favor of the Communists was given us by Mr. Dulles, head of the Central Intelligence Agency, and by you.

Presumably your informatoin comes from the Joint Intelligence; does it not?

General LEMAY. Yes, sir.

Senator JACKSON. Mr. Chairman, would you yield just for this point?

I would like to have placed in the record at this point, the national intelligence estimates of the period of 1958 to 1960 with reference to long-range bombers, Bears and Bisons of the Soviet Union.

Senator SYMINGTON. The committee would be glad to place that in.

Senator JACKSON. Ask the staff to prepare that and put it in at this point in the record.

(Material subsequently supplied to committee.)

Senator SYMINGTON. The Chair would like to say, in no sense in a contentious manner, that if this information from Mr. Wilson, which has gone all over America, is correct as given by Mr. Wilson, then the information given us by Mr. Allen Dulles, the head of the CIA, and General LeMay, is not true; or putting it another way, if the information given us by Mr. Dulles and General LeMay is true, then the implication Mr. Wilson developed in his press conference is not true.

I would like to ask 1 or 2 further questions here if I may, General.

First, on the B–52 picture. Do you know of any increase in production that has been made in order to take care of putting 45 B–52's in a wing instead of 30?

General LeMay. No, sir; the production program bears no relation to the number of airplanes in a wing.

Senator Symington. Based on your knowledge, if you do put 45 B–52's in a wing, then it is simply going to take that much longer to get that number of wings?

General LeMay. That is right.

Senator Symington. Based on your present production schedule?

General LeMay. Yes.

Senator Symington. Is that true?

General LeMay. You count the number of wings being essential, if we try to build this in striking power.

Senator Symington. Right. Now the Secretary of Defense talked about 2 step-ups in B–52 production; I remember only 1. Do you know of two?

General LeMay. The information I am operating on is a production rate, a peak of 17 a month. Now there have been a lot of other things going around and I understand there is a plan in existence now to go to 20 a month that I have heard talked about in the Pentagon, but I have no official information from the Air Staff to my command to the effect that it is going up, but I understand it is.

Senator Symington. You mean the information that the Secretary of Defense was talking about in his press conference? The second kickup is not information that has yet gotten to your comand?

General LeMay. No, sir; I do not have it yet.

Senator Symington. Is that correct?

General LeMay. Yes.

Senator Symington. General, there is one other point here.

Senator Jackson. Could you yield for just a moment for clarification?

I don't want to take your time but I think the first set-up of B–52 production was a statement that a 35 percent increase was being made, this was June of 1955.

General LeMay. That is right.

Senator Jackson. Followed by the second announcement of two-hundred-odd million the early part of April.

Senator Symington. That is correct, but the point is that when they increased in June 1955, they announced also later that the increase would be ultimately from 13 B–52's a month to 17.

Since then, they have announced a $230 million increase in B–52's, which would be about 29 more planes. I am not sure there has ever been any announcement, except this statement by Wilson of how many additional per month it would be increased.

Senator Jackson. I was just saying that there had been the two announcements of increases.

Senator Symington. Right.

My final question, General: Out of these hearings, perhaps the most surprising new information is the tremendous advantage tankers give to the attacking capability of our Strategic Air Force, which we all know the free world depends on at least as much as any other single weapons system.

Why, in your opinion, is tanker production so low?

I have seen your answer on the record, but there must be something more to it than that.

General LEMAY. As you know, Mr. Chairman, from being Secretary of the Air Force, we are always operating on a limited budget, and we have to plan our activities on a budget ceiling. At the time these plans were laid down, we chose more bombers than tankers because we thought that would give us more striking power.

We thought under an average situation of getting into a war, we might have a little warning and we could operate some of those bombers from overseas.

If that were true, it would give us more bombs on the target.

Senator SYMINGTON. In other words, you were given so much money and allowed to make your choice as to how you would handle that amount of money in units; is that correct?

General LEMAY. That is correct.

Senator SYMINGTON. As a result of that limited amount of money, you have come up now with a less effective force than if you had been given the money you needed to have the right number of tankers as against the number of bombers?

General LEMAY. If we had unlimited funds, we would have purchased a better ratio of tankers to bombers.

Senator SYMINGTON. I have no further questions at this time as I must leave. I thank the committee for its indulgence.

Senator Jackson, will you chair the committee while I am gone? I will look forward to seeing you all upon return. Thank you.

(At this point, Senator Symington left the hearing and Senator Jackson took over the chair.)

Senator JACKSON. Senator Saltonstall?

Senator SALTONSTALL. Does counsel have questions?

Senator JACKSON. Oh, excuse me, sir.

Mr. HAMILTON. I don't believe I have any question, Senator.

Senator JACKSON. Senator Saltonstall.

Senator SALTONSTALL. I would just like to make sure that I understand, General LeMay, just what you are going to do with relation to question 21 where you are going to submit a written statement for the record.

Now as you stated, or put it this way, that question includes—

> our present plants and programs, and when such changes must be started if we are to have assurance that our long-range Air Force will not became weaker than that of Russia by 1958 to 1960.

Do you mean by present plans and programs the plans and programs of the Strategic Air Command?

General LEMAY. My understanding of what the committee has asked for is that I will give them a written statement of what I think we should have in the United States in the way of resources in the Strategic Air Command to carry out the mission that I have been assigned as commander of the Strategic Air Command.

Senator SALTONSTALL. You state, and I agree with you, that it probably would be very difficult for you to make an accurate estimate of costs for that.

You would prefer not to be asked to do that?

General LEMAY. I would prefer not to get into costs if the committee agrees that I should not.

However, I can come up with some rough figures because I do have budget people, but normally they do not get into base construction, base costs, procurement of aircraft equipment, procurement costs, and things of that sort.

That is done at the Air Materiel Command for the equipment, and the engineers do our base construction for us.

Senator SALTONSTALL. Then, Mr. Chairman, I say to the acting chairman and Mr. Hamilton that I think that a copy of that plan that General LeMay submits should be submitted to the Defense Department so that the committee may have not only his plans and programs, but the estimated costs to complete that program so that we will have some idea, some overall picture, of the whole situation.

Mr. HAMILTON. I certainly agree, Senator Saltonstall, and I will undertake to see that that is done.

Senator JACKSON. It will be understood, General LeMay and his staff will prepare a list of items without the dollar sign attached submit it, to the committee, and then the committee can send the list to the appropriate department or Department of Defense.

Senator SALTONSTALL. I would say, Mr. Chairman, that that should go to the Secretary of Defense, and let him handle it through his budget committee.

Senator JACKSON. I don't care as to procedure.

Mr. HAMILTON. We will send it over.

Senator JACKSON. I would say, Senator Saltonstall, that we will handle it through Mr. Sprague and let him get the information.

Senator SALTONSTALL. That is satisfactory.

Senator JACKSON. The point is that the Air Materiel Command will have to pass on a lot of these items.

How we get the figures does not matter because all we are asking of General LeMay is to get a list of the items that he needs which are resources to carry out the mission that is assigned to him in light of the known capabilities of the country or countries that are potential enemies of the United States.

Senator SALTONSTALL. And with that, General LeMay, I assume that you will make your plans and programs by dates also, how many planes by such and such a date and how many bases by such and such a date so that the figures will be given as well.

General LEMAY. As near as possible.

You must understand that when I say I would like to have X number of airplanes, I would like to have them today. That is obviously impossible. They cannot be manufactured today. So the exact date that they can be procured is dependent on the Air Materiel Command in letting the contracts, fitting the production into the factory, budgeting, and things of that sort.

So I cannot accurately predict what might happen if I suggested an increase of airplanes that was approved.

I am going to write down what I would like to have and when I would like to have it. It may or may not be practical of attainment. I will do my best to make it as practical as possible, but I want the committee to understand that those things are outside of my purview.

Senator SALTONSTALL. I understand. That is why I am trying to bring these points out, General LeMay.

It is very important. You are the Strategic Air commander and a good one, and as such you want to have your force as nearly perfect from your point of view of accomplishing its mission as you possibly can have it.

That is clear?

General LeMay. Yes. I think I understand what the committee wants, and I think that they understand what they are going to receive.

I am going to give what I think to be a practical plan, but when it calls for a certain amount of equipment by such and such a time, I think the date will be reasonable, but it will certainly not be accurate. In fact, I do not think Air Materiel Command could forecast an exact date. They will be closer to it than I will.

Senator Saltonstall. Then also, General, this comes in, as I see it. I am trying to be as careful as I can because I think that the answer to this question in writing over a period of time is a very difficult thing for you to answer correctly, accurately, and also we want to make it just as clear and foolproof and crystal clear as we can. Otherwise we may get off on angles.

Now another point that I would like to bring out or call to your attention is the B–36's are now obsolescent as you say. I am correct in that? They are still valuable, however, and they are still our first line for a year or two years to come?

General LeMay. If I had my desires now, they would all be in junk-piles.

Senator Saltonstall. That is right, sir?

General LeMay. However, we still have them and it is the only thing we do have, and we are going to fight with them if we have to go to war. But the casualty rate is going to be much higher than it would be if we had them already replaced with B–52s.

Senator Saltonstall. That is correct.

Now what I am bringing out is we are now working on a new B–57, isn't that what it is called?

General LeMay. The B–57 is a light bomber.

Senator Saltonstall. We have got research out now and are attempting to get a prototype of an improvement over the B–52; are we not?

[Deletion by Department of Defense censor.]

General LeMay. They are just study contracts yet and they are not an airplane yet. They are a lot of ideas in someone's mind. We don't know what the final configuration is going to be. It may not even look like an airplane.

It is a weapons system, something to replace the B–52. However, this is some time off.

[Deleted by Department of Defense censor.]

Senator Saltonstall. Now, our B–52's would be based on the production of about five a month from now until the first of January, is that correct, produced and accepted?

General LeMay. We have a constantly rising production curve. Have we got the book?

General McConnell. No, sir; we have not.

General LeMay. Without it, I can't tell you what the production rate is from month to month.

Senator SALTONSTALL. But if we go up to that figure of 17 a month, which I think you stated was being discussed, is it being more than discussed?

Do you know that the rate will go up as high as 17?

General LEMAY. The information that I have officially in headquarters is that they are planning to go to 17 a month.

Senator SALTONSTALL. By when?

General MCCONNELL. Senator, I don't remember.

Mr. HAMILTON. I think maybe we can supply that to you, Senator.

General LEMAY. I think that has already been testified to and is in the record someplace. I do not have the book at this time.

Senator SALTONSTALL. May I ask this in the form of a question: Are your statements with relation to the relative strength of our Air Force, our B–52's and the Russian Bears and Bisons, based on that increased estimated production up to 17 a month?

General LEMAY. 17 a month; yes.

Senator SALTONSTALL. Mr. Hamilton points out that the B–52 production will reach a peak of 17 a month and run thereafter at 17 a month. That is from both sources. And you say that you have not heard of anything that would put it up above that figure officially?

General LEMAY. I have heard about it, yes. I have not been officially notified, so the answers to my questions were based on 17 a month, based on the information that I had officially received.

The answers to the questions that I gave you were based on the information I had officially received.

Senator SALTONSTALL. Yes.

And on that information officially received, in 1958 and 1959 and 1960 the comparison of an increasing Russian production as opposed to ours is based on that figure?

General LEMAY. The figure of 17?

Senator SALTONSTALL. Yes.

General LEMAY. Yes.

General MCCONNELL. That is right, yes.

Senator SALTONSTALL. I have no further questions.

Thank you, General.

Senator JACKSON. Senator Duff?

Senator DUFF. General, I jotted down here a couple of questions that occurred to me.

First, in view of the fact that the B–52's are now in production, is it within the competence of the United States to so step up production of B–52's between now and 1960 to prevent an undue preponderance of long-range bombers on the part of the Russians?

General LEMAY. Yes, sir; I think that that is possible.

What your question boils down to is can we or do we have the capability of outproducing Russia?

Senator DUFF. Yes, sir.

General LEMAY. I think the answer is "Yes."

Senator DUFF. The next question is, how many factories are there now in the United States capable of producing the kind of planes needed by the Strategic Air Force?

General LEMAY. Most any aircraft factory is capable of producing them. Some of them will produce a little more efficiently than others,

but I think it is fair to say that they can all participate in the program.

Senator DUFF. So that there are not so few that they would offer the kind of targets that the Russians would attempt to eliminate as one of the first strikes that we have?

General LEMAY. Well, sir, I do not think that is important because I do not think any bomber will come out the door after the war starts, and your decision is going to be rendered with what you have in the units at the time the war starts.

So mobilization potential I do not think is important.

Senator DUFF. So that when the gong rings, that is when you have got to have it?

General LEMAY. Yes, sir.

Senator JACKSON. General LeMay, in other words, the point is that you have to operate under the defense concept that you have an effective force in being at the time the balloon goes up.

What you have in being is going to determine the decision in an air atomic conflict, to a large part?

General LEMAY. That is correct. The airpower battle is going to be fought first. All military people agree to that, that you cannot undertake any other task, until you have won the airpower battle and have air superiority. That, in my opinion, is going to be the main decision.

Whoever wins the airpower battle will then go on and win the war.

Senator JACKSON. We are not going to win like we did in World War I and World War II, by the too-little and too-late philosophy, that is to get people all stirred up after the war starts and then start producing.

That is the way we won those two wars; is that correct?

General LEMAY. That is true.

Senator JACKSON. The Chair understands, some of this is personal knowledge coming from the State of Washington, that the Boeing Aircraft Corp. has a capacity to increase its output beyond 17 a month. I think there will be testimony later, Senator Duff. The Chair understands that they have a potential capacity of about 45 planes per month, using only the Wichita and Seattle plants.

General LEMAY. That is my understanding.

Senator JACKSON. That is your understanding, General LeMay. And it is understood that there will be testimony specifically from the competent people within the Air Force on this subject, so there really is no need for new production facilities in order to increase.

Senator DUFF. I think that is what I wanted to make clear.

Senator JACKSON. I think on that point it is undisputed. I do not know, if tankers are stepped up, what the situation would be.

[Deletion by Department of Defense censor.]

General LEMAY. We have the capability to increase tanker production substantially.

Senator JACKSON. Anyway, even when February of 1958 rolls around, we are a long way from utilizing the total potential existing capacity of the Boeing Aircraft Co. at its various plants; is that correct?

General LEMAY. That is true.

(Discussion off the record.)

Senator JACKSON. Senator Saltonstall, the Chair understands that at the present time Boeing is operating one full shift 5 days a week

with the second and third on a skeleton basis. The degree of skeletonization I am not sure of, but at least that is what it was 3 weeks ago when I was in Seattle. We can supply that information for the record.

Someone from the Air Force will be here to testify and we will have the information from the people who are responsible for it. General Irvine, I would assume, would know about that.

General LeMay, I do not want to be repetitious, but would you just state briefly the reason why some of the B–52 wings are being increased from 30 to 45 planes?

General LeMay. Wings are formed just like companies, battalions, regiments or ground forces and divisions of destroyers and things of that sort, to get the most efficient grouping of individuals together to fight together so that they can be handled properly.

You know, I am sure, that the various wings in the Air Force, various types of wings, fighter wings, bomber wings, reconnaissance wings, and so forth, have different numbers of airplanes because their airplanes are of different sizes, configurations and are designed to do different things.

A fighter wing for instance has 75. They are much smaller airplanes.

The maintenance job is considerably less, and therefore an overhead organization that can be properly handled by a commander can take care of a greater number of airplanes.

The B–36 was a big complicated airplane.

Senator Jackson. Sixteen in a crew?

General LeMay. Sixteen in a crew.

Senator Jackson. How many in a B–52?

General McConnell. Six.

General LeMay. When I came to SAC 7 years ago there were only 18 B–36's in a wing. That was the first start at it. Well, we got better than that and worked it up to 30 so that 30 airplanes could be properly handled in a businesslike manner. It became apparent as soon as we started to learn something about the B–52 that the B–52 was going to be easier to maintain than the B–36 so that we felt 45 could be operated in a wing with about the same overhead.

In other words, it is a more efficient way of producing striking power for the country to do it that way.

Senator Jackson. But it has not anything to do with the total number of planes you are producing?

General LeMay. No. There is no connection between them.

Senator Jackson. The fact that we turn out hundreds and hundreds of fighters would not mean you would increase your fighter wings to 100 or 150, would it?

General LeMay. No. The number of airplanes produced has no relation to the number in a wing.

Senator Jackson. And to summarize, there are certain factors that stand out.

The first factor is what unit is the most efficient to carry out your mission, and that has something to do with the number of bases you have too.

Sometimes you have to double up, don't you, but that is bad because you always take into consideration dispersal and other things that will give you greater striking power with the number of planes you have?

General LeMay. Yes.

Senator JACKSON. Secondly, then, it relates to whether it is a complicated mechanism?

Does it take a heavy maintenance crew, like the B–36 in comparison with the B–52?

And then you take into consideration the size of your overall crews, maintenance and ground.

All of those things taken together are measured to determine the size of a wing of any type of aircraft?

General LEMAY. That is true, what can be handled within the organization. I understand that there is a study going on now in the Air Defense Command to reduce the number of fighters that are in a wing, because they, as you well know, are becoming more and more complicated and a bigger and bigger vehicle.

And I would not be a bit surprised to see the number of fighters in a wing reduced.

Senator JACKSON. And your housekeeping units tie in with that?

General LEMAY. Yes.

Senator JACKSON. The reason the Chair asked the question was that he became very confused when he read the papers after being briefed up here. The statement in the paper said that the increase that was being made from 30 to 45 was made possible because a recently announced production speedup will mean more planes quicker.

I was at a complete loss to follow that line of reasoning because then the size of all wings would increase in all aircraft components where you increased production and I did not think there was any logical relationship between the two.

Senator Ervin, I beg your pardon.

Senator ERVIN. No questions.

I am just listening. I would like to commend General LeMay, though, for the very clear statement he has made to the committee on these matters.

General LEMAY. Thank you, Senator.

Senator JACKSON. Did you gentlemen have any questions?

Senator GOLDWATER. I just want to thank the chairman for allowing me to be here today.

If the Chair would permit an observation, I am very glad that the question of both the Chair and Senator Saltonstall has brought out the remarks from General LeMay that he will lay out on paper what he feels he needs in the way of the Strategic Air Command.

If I have any criticism of the Air Force since the Second War, it has been their seeming timidity to put down on paper what they want and then let those of us who believe in them fight for that amount, and let the money take care of itself.

Senator JACKSON. The Chair would merely want to say this: that from my own personal observation I have never found any timidity on the part of General LeMay in giving to Congress any information requested.

The Chair would also like to say that when the proper questions have been put to the people in the Air Force and the other services I have always found our professional soldiers willing to give the requested information.

The Chair would also like to conclude by saying that unless those questions are asked, since they have a program they have to defend,

it is difficult for them to simply volunteer the information, as they are bound to support the official budget.

Have I stated it correctly?

General LeMay. Yes; that is correct.

To make an observation on Senator Goldwater's statement, I want 15 days to do this job because I want to go back and check my records to see what I have asked for in the past, and bring it up to date to make sure I am consistent, because all of my recommendations have gone in and are steadily going in, and this is not something that I am going home and pull out of the blue at the present time.

Senator Jackson. Senator Goldwater?

Senator Goldwater. "Timid" would certainly be a word that would be clear out in the jungle were it to be applied to General LeMay, but unfortunately in the formation of our plans, we do not always call on the subordinate commanders.

I have felt for a number of years that we were not approaching the total Air Force properly and that goes probably over 10 years, that we ought to say we need X number of airplanes and X number of men to do the job.

I am convinced that if we can come up with a figure like that, the American public will back it and we can provide it.

I do not necessarily mean that we need 10,000 airplanes or a thousand airplanes.

Certainly these professionals know what the figure is, and if we can convince the top commanders in the services to come up with it, we can get a balanced overall program.

Senator Jackson. Senator Goldwater, before you came in, Senator Symington made reference to that point. The top professional officer in the Air Force, General Twining, testified before the Senate Armed Services Committee that he had requested of the Secretary of the Air Force approximately, I believe, 20 billions of dollars. That was cut by the Secretary of the Air Force to $18 billion and something, and was later cut by Mr. Wilson to $16 billion something.

I believe that is the record.

Senator Malone. Mr. Chairman.

Senator Jackson. Senator Malone.

Senator Malone. I would just add this comment.

Costs of airplanes, different types of airplanes and the intricate machinery, now change so fast that I think we are making a mistake talking about dollars all the time.

We talk about what they need, and I want to compliment this committee—this is the first time I have sat in with them.

If you follow through, and I think you are right in the heart of it now, you will have plenty of support on that on the Senate floor.

I have been worrying about it a long time, especially after I visited Russia for a couple of months last summer.

Senator Duff. I would like to ask one more question.

Senator Jackson. Senator Duff.

Senator Duff. General, unless we provide you with the personnel and the bases, irrespective of how many new planes you get, you are not going to be able to use them, are you?

General LeMay. No, sir. You must have bases and people to properly utilize the equipment.

By and large we are not doing that now.

We are not operating the equipment we have in as efficient a manner as we could.

Senator DUFF. In that particular situation, it would merely be aggravated by providing more planes if you do not get more personnel and more bases; is that correct?

General LEMAY. More personnel and bases have to go with them; yes, sir.

Senator SALTONSTALL. And training.

Senator DUFF. I am assuming they would be trained.

Senator GOLDWATER. Might I interrupt again here, Mr. Chairman, to ask if the question which you propose to General LeMay on what he needs also includes personnel and bases?

Senator JACKSON. It is a package. The Chair understands that the General, if he asks for more planes, obviously would want those planes to be effective to carry out his mission.

The Chair would think that that would include all supporting resources, whether it is bases or people or equipment, or materiel.

That is the way it is to be submitted as a package at Senator Saltonstall's request.

Senator DUFF. The testimony has been so far that we do not have sufficient personnel and bases even to handle the equipment we have at the present time.

Senator GOLDWATER. I was interested in listening to the testimony of General LeMay the other day because a year and a half ago he and I discussed it at his headquarters, and I can say that in the Air Defense Command, which is my reserve assignment, we have exactly the same trouble which exists all through the Air Force—insufficient recognition of skills by pay.

I think it is one of the most pressing problems we have. I think in fact it is probably as pressing as the equipment itself.

Senator JACKSON. Are there any further questions?

General, we certainly want to thank you and General McConnell and your staff for your very forthright presentation both in executive and public sessions.

We know that you have expressed your own personal views. It is essential for this committee, just as it is for the executive branch, to get the views of the people who know best, the professionals who devote their lives to it.

When we get all that information we will be in a position then to decide what we should have.

Speaking for myself, and I am sure every one of the committee, you have been very honest and forthright and helpful in assisting us in the assignment of this subcommittee.

General LEMAY. Thank you, Senator.

Senator JACKSON. We are sorry to have kept you away from your command so long.

Senator SALTONSTALL. I join my thanks.

Senator DUFF. I would like to be associated with that.

Senator JACKSON. The record will show it is unanimous.

The record will show that the committee will stand in recess subject to the call of the chairman.

(Whereupon, at 3:10 p. m., the committee was adjourned, subject to the call of the Chair.)

×